

SEP 29 1988

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I

DATE: September 26, 1988

SUBJ: Criteria for Determining RCRA Facility Owner/Operator  
Willingness

FROM: Ira Leighton, Chief  
CI Waste Management Branch

TO: Merrill S. Hohman  
Linda Murphy

RCRA Section Chiefs  
CERCLA Section Chiefs  
WMD Branch Chiefs

CT staff  
Pls. read  
will impact  
out C.A.  
work  
JH

Hazardous waste sites subject to Subtitle C of RCRA cannot be proposed on the NPL unless it is clearly demonstrated that the owner/operator is unwilling to perform the cleanup. Attached please find a copy of the proposed revision to the existing criteria for establishing the willingness on the part of the owner/operator to perform the needed cleanup. Under the current policy, the only criterion EPA considers is whether the owner or operator has officially filed for bankruptcy.

Given the resource constraints in the RCRA program and the significance of the environmental problems associated with some Subtitle C sites, this policy will be important to Region I in terms of our ability to use all available authorities and sources of funding to attack the most significant environmental problems in the Region.

It is important to note that the Agency can conduct fund financed removals and RIFs actions prior to proposed listing on the NPL. The impact of the willingness test on these actions at Subtitle C sites looms as a significant policy call. The CI Branch has embarked on an effort to hold periodic state meetings where RCRA and CERCLA activities and priorities are discussed. We will continue to invite ESD to participate in these meetings as a means of coordinating our collective interests on RCRA/CERCLA activities.

Please do not hesitate to give me any thoughts or opinions you may have on this subject. It is my opinion that our geographic organizational format presents us with a unique opportunity to coordinate the interface between RCRA and CERCLA.

cc: Pam Hill  
Don Porteous  
Deb Pernice

# Federal Register

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**Tuesday  
August 9, 1988**

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## **Part III**

## **Environmental Protection Agency**

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**40 CFR Part 300**

**National Priorities List for Uncontrolled  
Hazardous Waste Sites; Policy  
Statements**

**ENVIRONMENTAL PROTECTION  
AGENCY**

**40 CFR Part 300**

**(FRL-3426-6)**

**The National Priorities List for  
Uncontrolled Hazardous Waste Sites—  
Additions to Policy for Determining  
Inability-To-Pay for Sites Subject to  
the Subtitle C Corrective Action  
Authorities of the Resource  
Conservation and Recovery Act**

**AGENCY:** Environmental Protection  
Agency.

**ACTION:** Policy statement for comment.

**SUMMARY:** The Environmental Protection Agency (EPA) is requesting comment on a policy relating to the National Oil and Hazardous Substances Contingency Plan (NCP), which EPA promulgated pursuant to Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and Executive Order 12316.

CERCLA requires that the NCP include a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, and contaminants throughout the United States, and that the list be revised at least annually. The National Priorities List (NPL), initially promulgated as Appendix B of the NCP on September 8, 1983, constitutes this list and meets those requirements.

Since the first NPL final rule (48 FR 40658, September 8, 1983), the Agency's policy has been to defer placing sites on the NPL that can be addressed by corrective action under Subtitle C of the Resource Conservation and Recovery Act (RCRA). This notice solicits comment on additional criteria for determining when the owner/operator of a site is considered unable to pay for addressing the contamination at a RCRA-regulated site, and therefore, the site should be proposed for the NPL. Elsewhere in today's Federal Register, the Agency is publishing a notice that discusses the policy for determining when RCRA facilities are unwilling to perform corrective action, and therefore, should be proposed for the NPL.

**DATE:** Comments may be submitted on or before October 11, 1988.

**ADDRESSES:** Comments on the inability criteria may be mailed to CERCLA Docket Clerk, Attn: Docket Number UL; Mail Code WH-548D, Hazardous Waste Fund Docket, Room LG-100, U.S. Environmental Protection Agency, 401 M

Street, SW., Washington, DC 20460. Please send three copies of comments.

**FOR FURTHER INFORMATION CONTACT:** Nancy Parkinson, RCRA Enforcement Division, Office of Waste Programs Enforcement (WH-527), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, phone (800) 424-9346 or 382-3000 in the Washington, DC metropolitan area.

**SUPPLEMENTARY INFORMATION:**

**Table of Contents**

- I. Introduction
- II. Contents of this Proposed Policy
- III. Request for Comment on Inability Criteria

**I. Introduction**

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Sections 9601-9657 (CERCLA or the Act), in response to the dangers of uncontrolled hazardous waste sites; CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). To implement CERCLA, the Environmental Protection Agency (EPA or the Agency) promulgated the revised National Oil and Hazardous Substances Contingency Plan (NCP), 40 CFR Part 300, on July 16, 1982 (47 FR 31180), pursuant to Section 105 of CERCLA and Executive Order 12316. The NCP, further revised by EPA on September 16, 1985 (50 FR 37624), and November 20, 1985 (50 FR 47912), sets forth guidelines and procedures needed to respond under CERCLA to releases or threatened releases of hazardous substances, pollutants, or contaminants.

Section 105(a)(8)(A) of CERCLA (as amended) requires that the NCP include criteria for determining priorities among releases or threatened releases throughout the United States for the purpose of taking remedial or removal action. Removal action involves cleanup or other actions that are taken in response to emergency conditions on a short-term or temporary basis (CERCLA Section 101(23)). Remedial action tends to be long-term in nature and involves response actions which are consistent with a permanent remedy (CERCLA Section 101(24)). The Agency developed the Hazard Ranking System (HRS) to implement CERCLA Section 105(a)(8)(A). The HRS was codified as Appendix A of the NCP on July 16, 1982 (47 FR 31219).

Section 105(a)(8)(B) of CERCLA (as amended) requires that the statutory criteria described in the HRS be used to prepare a list of national priorities among the known releases or threatened releases throughout the United States. The list, which is Appendix B of the NCP, is the National Priorities List

(NPL). Section 105(a)(8)(B) also requires that the NPL be revised at least annually. An initial NPL of 406 sites was promulgated on September 8, 1983 (48 FR 40658). The NPL has been amended several times since then. Currently, there are 799 sites on, and 378 sites proposed to, the NPL.

**II. Contents of this Policy**

**A. History of the Policy**

Since the first NPL final rule (48 FR 40658, September 8, 1983), the Agency's policy has been to defer placing on the NPL sites that could be addressed by the corrective action authorities under Subtitle C of the Resource Conservation and Recovery Act (RCRA). Until 1984, the RCRA Subtitle C corrective action authorities were limited to facilities with releases to ground water from surface impoundments, waste piles, land treatment areas, and landfills that received RCRA hazardous waste after July 26, 1982, and did not certify closure prior to January 26, 1983 (i.e., land disposal facilities addressable by an operating or post-closure permit). Sites which met these criteria were placed on the NPL only if they were abandoned, lacked sufficient resources, or RCRA Subtitle C corrective action authorities could not be enforced. Those RCRA facilities where a significant portion of the release appeared to come from a nonregulated land disposal unit were also considered appropriate for listing.

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (HSWA) were enacted. HSWA greatly expanded RCRA Subtitle C corrective action authorities as follows:

- Section 3004(u) requires permits issued after the enactment of HSWA to include corrective action for all releases of hazardous waste or constituents from solid waste management units at treatment, storage, or disposal facilities seeking a permit;

- Section 3004(v) requires corrective action to be taken beyond the facility boundary where necessary to protect human health and the environment unless the owner/operator of the facility demonstrates that despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action; and

- Section 3008(h) authorizes the Administrator of EPA to issue an order requiring corrective action or such other response measure as deemed necessary to protect human health or the environment whenever it is determined that there is or has been a release of hazardous waste into the environment from a facility with interim status.

Because the expanded Subtitle C corrective action authorities of HSWA allowed EPA to address contamination at non-regulated units of RCRA

facilities, the Agency announced a draft revised policy which provided for the deferral from listing of RCRA sites unless the Agency determined that RCRA corrective action was not likely to succeed or occur promptly, due to factors such as:

- The inability or unwillingness of the owner/operator to pay for addressing the contamination at the site
- Inadequate financial responsibility guarantees to pay for such costs
- EPA or State priorities for addressing RCRA sites (50 FR 14118, April 10, 1985).

The Agency evaluated comments received on the draft policy, and on June 10, 1986 (51 FR 21059), announced its listing and deferral policy for non-Federal RCRA sites.<sup>1</sup> RCRA sites not subject to RCRA Subtitle C corrective action authorities would continue to be on the NPL. Some examples include:

Facilities that ceased treating, storing, or disposing of hazardous waste prior to November 19, 1980 (the effective date of Phase I of the RCRA regulations), and to which the RCRA corrective action authorities cannot be applied;

Sites at which only materials exempted from the statutory or regulatory definition of solid or hazardous waste were managed; and

RCRA hazardous waste handlers to which RCRA Subtitle C corrective action authorities do not apply, such as hazardous waste generators or transporters not required to have interim status or a final RCRA permit.

Further, the Agency stated that although sites that could be addressed by RCRA Subtitle C corrective action authorities generally would not be placed on the NPL, RCRA sites subject to corrective action should be listed in certain circumstances if the owners/operators of facilities are either unable or unwilling to take corrective action at sites. The Agency recognized that in such situations, it may be appropriate to place the sites on the NPL in order to make CERCLA funds available, if needed, for remedial action.<sup>2</sup>

<sup>1</sup> At that time, the Agency announced that it would consider at a later date whether this revised policy should apply to Federal facilities. On May 13, 1987 (52 FR 17981), the Agency announced its intent that Federal facilities should continue to be placed on the NPL regardless of their RCRA status.

<sup>2</sup> On June 24, 1988 (53 FR 23978), the Agency identified several other categories of RCRA facilities that are appropriate for the NPL. These facilities include converters, protective filers, non- or late-filers, and facilities with permits for the treatment, storage or disposal of hazardous waste issued prior to enactment of HSWA (where the owner/operator will not voluntarily modify the permit). Although the Agency has authority to compel RCRA corrective action at certain of these facilities (e.g., converters and non- or late-filers), the Agency has decided, for policy reasons, to clean up these sites using its CERCLA authority.

The Agency identified three categories of sites which, although subject to RCRA Subtitle C corrective action authorities, satisfy the unwillingness or inability criteria, and thus should be placed on the NPL:

- (1) Facilities owned by persons who are bankrupt;
- (2) Facilities that have lost authorization to operate and for which there are indications that the owner/operator has been unwilling to undertake corrective action; and
- (3) Facilities that have not lost authorization to operate, but which have a clear history of unwillingness. These situations are determined on a case-by-case basis (51 FR 21054, June 10, 1986).

Also, on June 10, 1986, the Agency solicited comments on the types of sites that may have demonstrated an unwillingness to perform corrective action (51 FR 21111). The Agency suggested that sites meeting the following criteria might be placed on the NPL under the unwillingness category:

- (1) Facilities whose owners or operators have not complied adequately with an administrative order, judicial action, or a RCRA permit condition requiring response or corrective action; and
- (2) Facilities whose owners or operators have not submitted or implemented an adequate closure plan.

Elsewhere in today's Federal Register, the Agency is publishing a notice that discusses the policy for determining when RCRA facilities are unwilling to perform corrective action and therefore, should be proposed for the NPL.

### III. Request for Comment on Inability Criteria

The Agency is soliciting comment today on that portion of the RCRA policy concerning the inability of an owner/operator to pay for cleaning up a RCRA-regulated site. Under the current policy, the sole financial criterion considered when an RCRA facility is proposed for the NPL is whether the owner/operator has formally invoked the protection of the bankruptcy laws. The Agency is concerned that this criterion may be unduly restrictive. It will not allow listing a site and proceeding with a CERCLA remedial action if an owner/operator has chosen not to invoke the protection of the bankruptcy laws and is willing and able to do some but not all of the cleanup work. Under such circumstances, RCRA authorities would fail to provide for complete cleanup, yet the site could not be placed on the NPL in a timely fashion.

The Agency is considering amending the RCRA policy to include an additional criterion that will allow

placing an RCRA-related site on the NPL if the owner/operator is unable to pay for the cleanup proposed by EPA. EPA is also considering the possibility of allowing an RCRA facility that can demonstrate ability to pay to be deferred from the NPL.

### Inability to Pay

The new inability to pay criterion that EPA is considering involves comparing the cost of the site remedy proposed by EPA with the financial viability of the owner/operator. The comparison (and subsequent listing, if appropriate) would only be made after an RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) for the facility are completed and an EPA-proposed remedy is publicly available; this would ensure that the cost of cleanup is fairly well established. EPA is proposed to place an RCRA site on the NPL if:

The estimated cost of the EPA-proposed remedy is greater than the tangible net worth of the owner/operator.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties. See, e.g., 40 CFR 265.141(f).

To implement such a policy, the Agency would be required to consider various types of financial information. As a general rule, the Agency is considering relying on publicly available financial information, such as Securities and Exchange Commission 10K or 10Q reports and financial information provided to State and local governments. If the information available from such sources is inadequate, the Agency is considering seeking financial information through the use of CERCLA Section 104(e). Section 104(e)(2)(C) specifically allows EPA to send information request letters relating to a person's ability to pay for or perform a cleanup of the site. EPA is requesting comment on using these sources, as well as comment on the possibility of using other information, such as that available from financial reporting firms such as Dunn & Bradstreet.

EPA believes that a comparison of tangible net worth to the cost of the EPA-proposed remedy represents the best approach, especially if EPA's selection is not appealed and thus takes effect quickly. The Agency recognizes, however, that the owner/operator or a citizen's group may successfully challenge EPA's selection, and a lower cost option—one that the facility could afford to pay—might eventually be

selected. To accommodate such nations, EPA is soliciting comment on alternative to the criterion outlined ve. Under that alternative EPA would place an RCRA site on the NPL if:

The estimated cost of a) the least expensive remedy considered in the CMS (excluding "no action"), or b) the remedy ultimately selected after any appeals, is greater than the tangible net worth of the owner/operator.

This alternative is more conservative than the first option in that it considers the possibility that the owner/operator might be able to pay for a less costly remedy than that proposed by EPA and that the less costly remedy might eventually be selected. This alternative, however, could delay listing a site until the completion of the appeal process if the remedy proposed by EPA (or a more expensive remedy) is ultimately chosen after an appeal, and the owner/operator is unable to pay for that remedy.

This alternative also excludes the "no-action" remedy from the comparison with tangible net worth. Under the NCP (40 CFR 300.68(f)(1)(v)), the Agency must, in most CERCLA cases, consider a zero-cost, "no action" remedy. RCRA guidance generally requires consideration in the CMS of similar "no-action" remedies. In such cases, the "no-action" remedy would clearly constitute the "least expensive remedy considered"; thus, no sites could be listed on the basis of inability to pay if the "no-action" remedy were considered in the comparison. As a result, the Agency believes it is appropriate to exclude the "no-action" remedy from the comparison with tangible net worth.

#### *Ability to Pay*

To supplement either of the two alternatives under consideration, EPA believes that it may be appropriate to defer the listing of an RCRA site if an owner/operator demonstrates ability to

fund all cleanup costs. Therefore, EPA is proposing to defer placing an RCRA site on the NPL if:

The owner/operator posts a surety bond or letter of credit guaranteeing payment of EPA's proposed remedy.

The Agency requires similar financial instruments for assuring sufficient funds for RCRA site closure and post-closure. See 40 CFR 265.143 (b) and (c).

EPA requests comment on these criteria to determine if a site owner/operator is unable to fund cleanup costs.

Date: August 3, 1988.

J.W. McGraw,

*Acting Assistant Administrator, Office of Solid Waste and Emergency Response.*

[FR Doc. 88-17926 Filed 8-8-88; 8:45 am]

BILLING CODE 6560-50-M

**ENVIRONMENTAL PROTECTION  
AGENCY****40 CFR Part 300****(FRL-3415-7)****The National Priorities List for  
Uncontrolled Hazardous Waste Sites—  
Criteria for Determining Unwillingness  
for Sites Subject to the Subtitle C  
Corrective Action Authorities of the  
Resource Conservation and Recovery  
Act****AGENCY:** Environmental Protection  
Agency.**ACTION:** Policy statement.

**SUMMARY:** The Environmental Protection Agency (EPA) is publishing a policy relating to the National Oil and Hazardous Substances Contingency Plan (NCP), which EPA promulgated pursuant to Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and Executive Order 12316.

CERCLA requires that the NCP include a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, and contaminants throughout the United States, and that the list be revised at least annually. The National Priorities List (NPL), initially promulgated as Appendix B of the NCP on September 8, 1983, constitutes this list and meets those requirements.

Since the first NPL final rule (48 FR 40658, September 8, 1983), the Agency's policy has been to defer placing sites on the NPL that can be addressed by corrective action under Subtitle C of the Resource Conservation and Recovery Act (RCRA). This notice today discusses the Agency's policy for determining when such RCRA facilities are unwilling to perform corrective action, and therefore, should be proposed for the NPL. Relevant comments received in response to the June 10, 1986, Federal Register notice (51 FR 21109) that requested comment on proposed components of the NPL policy regarding RCRA-related sites will be available for public viewing at the Superfund Docket, Room LG-100, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. Comments may be viewed by appointment only, from 9:00 a.m. to 4:00 p.m., Monday through Friday, excluding Federal holidays, phone (800) 424-9346 or 382-3046 in the Washington, DC metropolitan area.

Elsewhere in today's Federal Register, the Agency is soliciting comment on

additional criteria for determining when the owner/operator of a site is considered unable to pay for addressing the contamination at a RCRA-regulated site, and therefore, the site should be proposed for the NPL.

**EFFECTIVE DATE:** The effective date for this policy shall be September 8, 1988.

**FOR FURTHER INFORMATION CONTACT:** Nancy Parkinson, RCRA Enforcement Division, Office of Waste Programs Enforcement (WH-527), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, phone (800) 424-9346 or 382-3000 in the Washington, DC metropolitan area.

**SUPPLEMENTARY INFORMATION:**

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- I. Introduction
- II. Contents of this Policy
- III. Non-Applicability of Revised Unwillingness Criteria to RCRA Sites Currently Proposed for Listing on the NPL
- IV. Response to Public Comments
- V. Application of Policy to Final NPL Sites

**I. Introduction**

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Sections 9601-9657 (CERCLA or the Act), in response to the dangers of uncontrolled hazardous waste sites; CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). To implement CERCLA, the Environmental Protection Agency (EPA or the Agency) promulgated the revised National Oil and Hazardous Substances Contingency Plan (NCP), 40 CFR Part 300, on July 16, 1982 (47 FR 31180), pursuant to Section 105 of CERCLA and Executive Order 12316. The NCP, further revised by EPA on September 16, 1985 (50 FR 37624), and November 20, 1985 (50 FR 47912), sets forth guidelines and procedures needed to respond under CERCLA to releases or threatened releases of hazardous substances, pollutants, or contaminants.

Section 105(a)(8)(A) of CERCLA (as amended) requires that the NCP include criteria for determining priorities among releases or threatened releases throughout the United States for the purpose of taking remedial or removal action. Removal action involves cleanup or other actions that are taken in response to emergency conditions on a short-term or temporary basis (CERCLA Section 101(23)). Remedial action tends to be long-term in nature and involves response actions which are consistent with a permanent remedy (CERCLA Section 101(24)). The Agency developed the Hazard Ranking System (HRS) to implement CERCLA Section

105(a)(8)(A). The HRS was codified as Appendix A of the NCP on July 16, 1982 (47 FR 31219).

Section 105(a)(8)(B) of CERCLA (as amended) requires that the statutory criteria described in the HRS be used to prepare a list of national priorities among the known releases or threatened releases throughout the United States. The list, which is Appendix B of the NCP, is the National Priorities List (NPL). Section 105(a)(8)(B) also requires that the NPL be revised at least annually. An initial NPL of 406 sites was promulgated on September 8, 1983 (48 FR 40658). The NPL has been amended several times since then. Currently, there are 799 sites on, and 378 sites proposed to, the NPL.

**II. Contents of This Policy****A. History of the Unwillingness Policy**

Since the first NPL final rule (48 FR 40658, September 8, 1983), the Agency's policy has been to defer placing on the NPL sites that could be addressed by the corrective action authorities under Subtitle C of the Resource Conservation and Recovery Act (RCRA). Until 1984, the RCRA Subtitle C corrective action authorities were limited to facilities with releases to ground water from surface impoundments, waste piles, land treatment areas, and landfills that received RCRA hazardous waste after July 26, 1982, and did not certify closure prior to January 26, 1983 (i.e., land disposal facilities addressable by an operating or post-closure permit). Sites which met these criteria were placed on the NPL only if they were abandoned, lacked sufficient resources, or RCRA Subtitle C corrective action authorities could not be enforced. Those RCRA facilities where a significant portion of the release appeared to come from a nonregulated land disposal unit were also considered appropriate for listing.

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (HSWA) were enacted. HSWA greatly expanded RCRA Subtitle C corrective action authorities as follows:

- Section 3004(u) requires permits issued after the enactment of HSWA to include corrective action for all releases of hazardous waste or constituents from solid waste management units at treatment, storage, or disposal facilities seeking a permit;
- Section 3004(v) requires corrective action to be taken beyond the facility boundary where necessary to protect human health and the environment unless the owner/operator of the facility demonstrates that despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action; and
- Section 3006(h) authorizes the Administrator of EPA to issue an order

requiring corrective action or such other response measure as deemed necessary to protect human health or the environment whenever it is determined that there is or has been a release of hazardous waste into the environment from a facility with interim status.

Because the expanded Subtitle C corrective action authorities of HSWA allowed EPA to address contamination at non-regulated units of RCRA facilities, the Agency announced a draft revised policy which provided for the deferral from listing of RCRA sites unless the Agency determined that RCRA corrective action was not likely to succeed or occur promptly, due to factors such as:

- The inability or unwillingness of the owner/operator to pay for addressing the contamination at the site
- Inadequate financial responsibility guarantees to pay for such costs
- EPA or State priorities for addressing RCRA sites (50 FR 14118, April 10, 1985).

The Agency evaluated comments received on the draft policy, and on June 10, 1986 (51 FR 21059), announced its listing and deferral policy for non-Federal RCRA sites.<sup>1</sup> RCRA sites not subject to RCRA Subtitle C corrective action authorities would continue to be on the NPL. Some examples include:

Facilities that ceased treating, storing, or disposing of hazardous waste prior to January 19, 1980 (the effective date of Title I of the RCRA regulations), and to which the RCRA corrective action authorities cannot be applied;

Sites at which only materials exempted from the statutory or regulatory definition of solid or hazardous waste were managed; and RCRA hazardous waste handlers to which RCRA Subtitle C corrective action authorities do not apply, such as hazardous waste generators or transporters not required to have interim status or a final RCRA permit.

Further, the Agency stated that although sites that could be addressed by RCRA Subtitle C corrective action authorities generally would not be placed on the NPL, RCRA sites subject to corrective action should be listed in certain circumstances if the owners/operators of facilities are either unable or unwilling to take corrective action at sites. The Agency recognized that in such situations, it may be appropriate to place the sites on the NPL in order to make CERCLA funds available, if needed, for remedial action.<sup>2</sup>

<sup>1</sup> At that time, the Agency announced that it would consider at a later date whether this revised policy should apply to Federal facilities. On May 13, 1987 (52 FR 17991), the Agency announced its intent that Federal facilities should continue to be placed on the NPL regardless of their RCRA status.

<sup>2</sup> June 24, 1986 (53 FR 23678), the Agency added several other categories of RCRA sites that are appropriate for the NPL. These

The Agency identified three categories of sites which, although subject to RCRA Subtitle C corrective action authorities, satisfy the unwillingness or inability criteria, and thus should be placed on the NPL:

- (1) Facilities owned by persons who are bankrupt;
- (2) Facilities that have lost authorization to operate and for which there are indications that the owner/operator has been unwilling to undertake corrective action; and
- (3) Facilities that have not lost authorization to operate, but which have a clear history of unwillingness. These situations are determined on a case-by-case basis (51 FR 21054, June 10, 1986).

Also, on June 10, 1986, the Agency solicited comments on the types of sites that may have demonstrated an unwillingness to perform corrective action (51 FR 21111). The Agency suggested that sites meeting the following criteria might be placed on the NPL under the unwillingness category:

- (1) Facilities whose owners or operators have not complied adequately with an administrative order, judicial action, or a RCRA permit condition requiring response or corrective action; and
- (2) Facilities whose owners or operators have not submitted or implemented an adequate closure plan.

#### *B. Revisions to the Unwillingness Policy*

Today, the Agency is announcing its decision on additional criteria to determine unwillingness. As a general matter, the Agency would prefer using available RCRA enforcement or permitting authorities to require corrective action<sup>3</sup> by the owner/operator at RCRA sites because this would help to conserve CERCLA resources for sites where no financially viable owner/operator is available.<sup>4</sup>

Facilities include converters, protective filers, non- or late-filers, and facilities with permits for the treatment, storage or disposal of hazardous waste issued prior to enactment of HSWA (where the owner/operator will not voluntarily modify the permit). Although the Agency has authority to compel RCRA corrective action at certain of these facilities (e.g., converters and non- or late-filers), the Agency has decided, for policy reasons, to clean up these sites using its CERCLA authority.

<sup>3</sup> For purposes of this policy, corrective action may include but not be limited to, interim measures, removal actions, studies and the implementation of corrective measures or remedial actions. An owner/operator's refusal to perform a study for example, may by itself indicate a general unwillingness to take corrective action; however, that determination should not be automatic but should be made in the broader context of the case, taking into account such factors as the extent of studies already done at the site and the reasons for requiring a study.

<sup>4</sup> The Agency may also decide to use CERCLA Sections 104(b) or 106 authorities at RCRA sites in order to obtain cleanup from potentially responsible parties other than the RCRA owner or operator, as appropriate. A site need not be on the NPL to use these authorities; however, a site must be on the NPL for CERCLA-funded remedial actions.

However, when the Agency determines that a RCRA facility owner/operator is unwilling to adequately carry out corrective action activities directed by EPA or a State pursuant to an order or permit, there is little assurance that releases will be addressed in a timely or environmentally sound manner under a RCRA order or permit. Therefore, such RCRA facilities should be listed in order to make CERCLA resources available expeditiously. RCRA facilities will be placed on the NPL based on unwillingness when owners/operators are not in compliance with one or more of the following:

- Federal or substantially equivalent State unilateral administrative order requiring corrective action, after the facility owner/operator has exhausted administrative due process rights;
- Federal or substantially equivalent State unilateral administrative order requiring corrective action, if the facility owner/operator did not pursue administrative due process rights within the specified time period;
- Initial Federal or State preliminary injunction or other judicial order requiring corrective action;
- Federal or State RCRA permit condition requiring corrective action after the facility owner/operator has exhausted administrative due process rights; or
- Final Federal or State consent decree or administrative order on consent requiring corrective action, after the exhaustion of any dispute resolution procedures.

For unilateral order authorities which do not expressly provide for administrative due process rights (e.g., RCRA Sections 7003 and 3013 and CERCLA Section 106), or for those instances where the Agency is proceeding with a civil action (e.g., under RCRA Section 3008(h)), an owner/operator who has been issued a preliminary injunction or other judicial order requiring corrective action, and is not in compliance with that order, will be considered unwilling.

These criteria clarify and expand the first of the two unwillingness criteria proposed on June 10, 1986 (51 FR 21111). After reviewing comments, the Agency decided not to consider the second of the two unwillingness criteria proposed on June 10, 1986, which related to the submittal and implementation of closure plans.

The Agency believes that the criteria announced today will provide a more objective and systematic means of determining unwillingness. Furthermore, the criteria respond to concerns that the due process rights of owners and operators should be protected. Using the new criteria, a facility owner/operator will not be declared to be unwilling

based simply on the issuance of an administrative order, for example. The owner/operator will have the opportunity to pursue administrative appeal rights, and only if the Agency's decision is upheld and the owner/operator still refuses to comply with the order, will the determination of unwillingness be made. Similarly, in a judicial order context, an owner/operator will not be declared to be unwilling until after refusal to comply with an initial judicial order requiring corrective action. The Agency believes that this approach addresses due process concerns while allowing the NPL proposal and promulgation process to continue and any corrective action deemed necessary to get underway without undue delay that could be prejudicial to the protection of human health and the environment.

### III. Non-Applicability of Revised Unwillingness Criteria to RCRA Sites Currently Proposed for the NPL

There are several RCRA facilities that are currently proposed for placement on the NPL, based upon their HRS scores and EPA's determination that the owner/operators were unwilling to take corrective action at the site. For each such site, the Agency made, prior to proposal, a case-by-case determination of the owner/operator's unwillingness to perform corrective action, consistent with the Agency's policy as announced on June 10, 1988, and EPA believes that the sites are appropriate for placement on the NPL.

EPA believes it would be inappropriate to go back and reexamine such already proposed sites based on the revised unwillingness criteria in today's notice for several reasons. First, the revised unwillingness criteria had not yet been announced at the time the currently-proposed sites were evaluated for unwillingness and proposed for NPL listing. Second, the new criteria do not represent a substantive change in EPA's policy of listing unwilling RCRA sites but rather, represent an attempt at developing objective criteria that can be more easily applied and understood. (As noted above, EPA believes that the determination made for the proposed sites still satisfy the Agency's policy and goals.) Third, the Agency recognizes that the Regions and States may, in order to meet the new objective criteria, be required in the future to issue corrective action orders at many RCRA sites before determining if an owner/operator is unwilling, rather than evaluating all evidence on a case-by-case basis; some

lead time needs to be allowed for the Regions and States to understand the new criteria and apply them to sites submitted to EPA Headquarters for NPL proposal. A decision to apply the new criteria to already proposed sites could significantly delay the listing and response action at those sites unnecessarily. Thus, the criteria announced today will only be applied to sites proposed after the date of this notice.

### IV. Response to Public Comments

No commenters addressed the Agency's June 10, 1988, request for suggestions on additional categories of RCRA facilities that should not be deferred from listing based on unwillingness to perform corrective action.

Seven commenters provided suggestions on the notice regarding circumstances where the Agency should determine that a facility's owner/operator is unwilling to perform corrective action.

One commenter suggested that failure to reach an agreement regarding corrective action through either an order or permit within a specified amount of time should result in placing a site on the NPL. If a consent order is the mechanism to be used, the goal would be a signed, completed order within the specified time frame. If a permit is the mechanism used, then permit conditions would be agreed upon and the owner/operator would agree to withhold any challenges to those conditions when a permit is issued. Failure to reach agreement by a specified deadline would result in listing.

In response, the Agency recognizes that it is important not to delay cleanup at any sites that are deferred from listing. Setting a specified time frame for reaching an agreement regarding corrective action through a consent order before CERCLA monies would be spent could help achieve that goal.

The Agency is currently developing the guidance for determining when during the enforcement process a deferred RCRA facility should again be considered for the NPL and for a CERCLA-financed remedial investigation/feasibility study (RI/FS). This guidance will set out for the owner/operator a process for the negotiation and appeal of the order, and will specify the point at which the Agency will consider the facility for the NPL and a CERCLA-financed RI/FS. The Agency agrees with the concept that a failure to reach an agreement should result in listing. However, the Agency intends to

use a set point in the appeal process to determine unwillingness instead of a set time frame, in consideration of due process appeal rights.

One commenter stated the unwillingness policy puts the owner/operator of a site in the untenable position of stating its inability or unwillingness to comply with the law that may be applicable under RCRA in order to obtain enforcement, cleanup and equitable cost sharing under CERCLA. Where financially sound potentially responsible parties (PRPs) have been identified, notified, and involved, and where activities are underway at a site pursuant to CERCLA, the policy should include a presumption that such activities proceed to completion under CERCLA.

In response, a site need not be on the NPL for CERCLA enforcement authorities to be used, and these authorities can be used to obtain cleanup from PRPs other than the owner or operator, as appropriate. The general intent of this policy is to pursue RCRA and CERCLA enforcement authorities first rather than expending Fund moneys at RCRA sites. The Agency has long maintained that both RCRA and CERCLA authorities can be used to respond at a site (see, for example, the National RCRA Corrective Action Strategy).

Two commenters suggested that the criteria to determine unwillingness clarify that unwillingness to perform corrective action includes unwillingness to comply with State-issued corrective action orders. One commenter suggested that the terms administrative order, judicial action, RCRA permit condition, and adequate closure plan be defined to include analogous actions by authorized States. The other commenter noted that in some situations the lead agency for implementing the cleanup procedures is a State agency, and that unwillingness to comply with an administrative order, judicial action, or permit condition requiring response or corrective action from the State agency is analogous to unwillingness to comply with Federal RCRA authority.

In response, the Agency has decided that unwillingness means noncompliance with State administrative orders requiring corrective action and permit conditions substantially equivalent to those under RCRA. The Agency does not believe that it is necessary to define substantially equivalent in the Federal Register. Rather, this term will be further explained in the guidance to this policy.

One commenter suggested an alternative for unwillingness would be to make all "failed" RCRA sites, i.e., those sites where RCRA enforcement may not be able to result in the desired remedy, automatically eligible for the NPL, so as to assure that appropriate remedial actions can be provided.

In response, EPA notes that the process for developing a RCRA corrective action order now provides for Interim Measures, RCRA Facility Investigations, Corrective Measure Studies, and Corrective Measure Implementations. This process is very similar to the development of a remedy under CERCLA, and will most often result in a desired remedy. The Agency believes the current policy, which allows a RCRA site to be placed on the NPL based on inability (i.e., bankruptcy) or unwillingness of the owner/operator to perform corrective action, assures that "failed" RCRA sites can be cleaned up.

One commenter suggested that where a commitment has been made to manage RCRA sites under CERCLA on a regional scale, they should continue to be handled under CERCLA. Specifically, sites that are part of an area where CERCLA funds have been used to begin regional planning and management should not be deferred from the NPL.

In response, the Agency does not see that sites that are part of an area where CERCLA funds have been used to begin regional planning and management should be a criterion for placing sites on the NPL. The Agency's intent is to first use available enforcement authorities to secure corrective action at RCRA sites rather than expend Fund moneys. RCRA and CERCLA authorities can be used in a consistent manner to address sites on a regional scale. The Agency will, on a case-by-case basis, review the need for a comprehensive oversight strategy in cases requiring integrated CERCLA/RCRA interaction.

One commenter suggested that a RCRA site should be listed if the contamination on the property is the result of past on-site disposal of hazardous substances by a third party that was neither related to nor caused by the operation of the permittee. The commenter believes it is not appropriate to apply RCRA corrective action requirements to the current owner of a site where the basis of RCRA jurisdiction for that site is independent of the contamination caused by pre-existing disposal of hazardous substances by a third party.

In response, EPA notes that the current owner/operator under RCRA is solely responsible for cleanup of contamination

existing on the site. 40 CFR 270.72(d) states that, with the exception of financial requirements, all "interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility." Therefore, the Agency does not agree that this should be a criterion for placing RCRA sites on the NPL.

One commenter believed that the mere issuance of an administrative order or the initiation of a judicial action should not serve as a criterion for unwillingness, and the failure to comply with a permit condition was less of a justification. The commenter felt such criteria encouraged a RCRA-regulated party to shift to CERCLA management in order to spread the responsibility to former customers, and to defer actual payment of cleanup costs. The commenter recognized there may be delays in awaiting a determination from an administrative law judge or a court, but that this would not be a problem in emergency situations where the Agency could use its CERCLA removal authorities (or RCRA Section 7003 authorities) without the site being on the NPL.

In response, the Agency agrees that mere issuance of an administrative order or judicial order should not automatically result in a determination of unwillingness. The criteria developed do allow for the exercise of the owner/operator's due process rights before the Agency can make a determination of unwillingness.

One commenter stated the proposed unwillingness criteria were too vague and could result in the addition of so many sites that the CERCLA program would be overwhelmed. The commenter stated that where emergency actions are needed to protect human health and the environment, they could be taken as part of a CERCLA removal action. The commenter stated the Agency should defer listing of sites subject to RCRA regulation or enforcement until final decisions on sites are made. This deferral should apply to RCRA sites that are in litigation as this could be interpreted as an effort to influence the outcome of the case.

In response, the Agency does not believe that the criteria will result in the listing of too many sites. In fact, the Agency believes the NPL/RCRA policy will result in focusing the Agency's CERCLA resources on the most appropriate sites. In addition, the Agency is adding more specificity to the criteria for determining unwillingness in this notice. The criteria for determining unwillingness do allow for the listing of a facility after an initial judicial order requiring corrective action. This

criterion may result in the listing of a site currently undergoing litigation. However, the Agency believes this policy is appropriate because it strikes a balance between exercise of the owner/operator's due process rights, and the need to protect human health and the environment. Finally, the decision to use removal authorities is not constrained by these listing criteria, since removals can be conducted on any site.

#### V. Application of Policy to Final NPL Sites

On June 10, 1986 (51 FR 21109), the Agency stated its intent to apply the RCRA listing policy to RCRA sites that are already on the final NPL. The Agency invited the owners or operators of facilities on the proposed or final NPL, or other persons, to provide information that would assist EPA in evaluating this draft policy.

Two commenters provided suggestions on items to be considered when applying the RCRA deferral policy to final sites. One commenter provided factors which should be addressed if deletion of final sites on the NPL is considered. The factors include: the length of time the facility has been on the NPL; whether PRPs have been identified; if PRPs have not been identified, can they be; are the PRPs financially sound; have EPA or any PRP taken any actions at the facility under CERCLA, and, if so, what actions; do the size, complexity, and toxicity of the site suggest such a large response cost that CERCLA enforcement will result in a more expeditious, thorough, and cost-effective cleanup; have CERCLA monies been spent, how much, for what purpose, and for how long; will additional CERCLA expenditures be required; will CERCLA monies spent be repaid; have PRPs spent money at the site; were PRP funds spent pursuant to an enforcement order or agreement; are further PRP expenditures expected.

In response, the Agency believes that it could consider many of the factors described by the commenter to determine if the RCRA listing policy should be applied to a site on the final NPL. Factors such as these can be important in determining the extent of CERCLA involvement at a site, and whether the owner/operator of the facility is addressing the contamination at the site through the RCRA corrective action authorities.

Another commenter suggested that the criteria for deleting a final RCRA site from the NPL should not be different from those determining eligibility. Therefore, the commenter felt RCRA-regulated facilities ought to be removed

from the NPL if they no longer meet the criteria for listing, and that to do otherwise would inequitably treat already listed sites in comparison to newly proposed sites.

In response, EPA believes it may be appropriate to apply different criteria to RCRA sites that are on the final NPL, as compared to sites that have merely been proposed. For final NPL sites, the Agency has completed its listing process, CERCLA actions are underway, and the public anticipates CERCLA response. EPA does not believe that applying different criteria to final RCRA sites that may be deleted will cause any significant prejudice to any party.

Finally, the Agency received comments from two RCRA facilities currently on the NPL. Both have signed consent orders to perform a remedial investigation/feasibility study (RI/FS). One commenter indicated the facility did not want to be removed from the NPL because doing so "would only hamper the progress being made there." The other commenter indicated the facility should be allowed to complete

the RI/FS currently in progress before deletion from the NPL was considered, not wanting a change in program administration to cause any delay or duplication of work underway.

In response, the Agency agrees that a change in program administration could be disruptive of work at sites where actions have already been begun.

Based on the comments received and discussions within the Agency, EPA intends to apply the RCRA deferral policy prospectively. EPA does not intend to go back and systematically review final RCRA sites on the NPL to determine whether they are being addressed through corrective action under RCRA for purposes of removing them from the final NPL. The Agency believes such a review would be time consuming, thereby detracting from more important work of the CERCLA program, and could disrupt work at sites where CERCLA actions have already begun. However, in certain limited cases where the owner/operator demonstrates that the corrective measures phase is progressing adequately under a Federal

RCRA corrective action order, for example, and demonstrates that the technical and compliance schedule requirements of the RCRA order or permit are being met, it may be appropriate to remove the site from the final NPL before the cleanup is complete.

The Agency is currently reviewing how such a policy should be applied. Because the resolution of this issue could have important implications on Agency procedures and resources, EPA plans to discuss criteria for the removal of final RCRA sites in the context of the general NPL deferral policy. This general policy will be discussed in the upcoming revisions to the National Oil and Hazardous Substances Pollution Contingency Plan.

Date: August 3, 1988.

J.W. McGraw,

*Acting Assistant Administrator, Office of Solid Waste and Emergency Response.*

[FR Doc. 88-17927 Filed 8-8-88; 8:45 am]

BILLING CODE 6560-50-M



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

December 13, 1990

Steven Pozner, Director of Compliance  
Clean Harbors Companies  
1200 Crown Colony Drive  
P.O. Box 9137  
Quincy, MA 02269

Dear Mr. Pozner:

This letter is in response to your request for clarification of the use of EPA Hazardous Waste Numbers in identifying pentachlorophenol wastes.

40 C.F.R. § 261.31 identifies EPA Hazardous Waste Number F027 as the following:

"Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)."

40 C.F.R. § 261.24, as amended at 55 Federal Register 11362 (March 29, 1990), identifies, among others, the following compound that exhibits the characteristic of toxicity:

D037 - Pentachlorophenol (regulatory level: 100 mg/L)

It has been, and remains, EPA's approach that, where a waste is listed in Subpart D of Part 261 (§ 261.30 - § 261.33) and a constituent for which it was listed appears in Subpart C of Part 261 (§ 261.20 - § 261.24), the Subpart D, or listed, Hazardous Waste Number is applicable to the waste.

In the case of pentachlorophenol, EPA Hazardous Waste Number F027 would be used for all unused formulations containing pentachlorophenol. EPA Hazardous Waste Number D037 would be used only for wastes which did not meet the criteria of F027. For example, solid wastes mixed with used formulations of pentachlorophenol (old telephone poles, railroad ties, etc.) would carry EPA Hazardous Waste Number D037.



Steven Pozner  
Clean Harbors Companies  
December 18, 1990  
Page 2

If you have any further questions or comments on this matter,  
feel free to call me at (617) 573-5778.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. G. Cianciarulo', written over a faint dotted line.

Robert G. Cianciarulo, Chemical Engineer  
RCRA Support Section  
Waste Management Division

cc: Joan Jouzaitis



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

October 26, 1990

Nick Skoularikis, PhD  
Loureiro Engineering Associates  
100 Northwest Drive  
Plainville, CT 06062

Dear Dr. Skoularikis:

We are in receipt of your correspondence of October 22, 1990 relative to a request for interpretation on whether the processing of 1,1,1-trichloroethane contaminated soils in an asphalt batching plant is considered as a beneficial reuse or recycling and therefore not subject to the RCRA hazardous waste regulations.

The processing of the 1,1,1-trichloroethane contaminated soil in an asphalt batching plant is not considered to be a beneficial reuse under 40 CFR §261.6. The 1,1,1-trichloroethane is considered to be a solvent and not a petroleum product such as gasoline or fuel oil. In order for the asphalt batching plant to receive the 1,1,1-trichloroethane contaminated soil, it must have a RCRA permit and have demonstrated that it meets the incinerator standards of 40 CFR Subpart O. Also, your letter does not contain any demonstration on what the benefits of the 1,1,1-trichloroethane would be in asphalt.

In addition, the disposal of the waste is subject to the requirements of 40 CFR Part 268 (Land Disposal Restriction). For the latest requirements with respect to the land disposal restrictions, please refer to the June 1, 1990, Federal Register Notice, 55 FR 22520 for treatment standards which were established for the third third wastes.

If you should have any questions, please call me at (617) 573-9644.

Sincerely,

A handwritten signature in cursive script that reads "Stephen Yee".

Stephen Yee, Environmental Engineer  
Waste Management Division

cc: Dave Nash, CTDEP  
Gerard Sotolongo, EPA  
John Podgurski, EPA  
Bob Cianciarulo, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

September 7, 1990

Daniel Gillingham, Inside Sales Manager  
Franklin Environmental Services, Inc.  
185 Industrial Road  
P.O. Box 617  
Wrentham, MA 02093

Dear Mr. Gillingham:

I have been asked to respond to your request, dated August 15, 1990, for clarification of certain Land Disposal Restrictions (LDR) and hazardous waste classification provisions.

Your interpretations are essentially correct. A generator who chooses to close a portion of his/her operation must determine whether any of the resultant debris meets the definition of hazardous waste under 40 C.F.R. Part 261. In your scenario, you outline a situation where piping, tanks, wood flooring, and concrete all show varying levels of EPA hazardous waste numbers F006 and F007. As you are aware, a listed waste, once identified, remains a RCRA hazardous waste, regardless of how much is present, unless and until the waste is "de-listed". In the case where demolition debris is contaminated with these listed wastes, the "mixture rule" of 40 C.F.R. § 261.3(a)(2)(iv) would require that these "solid wastes" mixed with "listed wastes" also carry the listed hazardous waste numbers, again, regardless of concentration.

EPA hazardous waste number F006 has been restricted from land disposal since August 8, 1988 (the cyanide standard for F006 was promulgated on June 8, 1989) and F007 has been restricted from land disposal since June 8, 1989. Therefore, the contaminated debris you have described must meet the applicable treatment standards outlined in 40 C.F.R. § 268.41 and/or § 268.43. To determine compliance with these treatment standards, a representative sample of the waste would have to be tested by the Toxicity Characteristic Leaching Procedure (TCLP) and a Total Waste Analysis (if cyanides are present). If the waste was found to exceed any of the treatment standards, the waste would have to be treated in order to meet the standard(s). Once all treatment standards are met, the waste may be disposed of in a "Subtitle C" hazardous waste landfill. These waste would still retain the F006 and/or F007 hazardous waste numbers.

EPA has not specified any method of treatment for F006 or F007. It should be noted, however, that, although stabilization is allowed for compliance with the treatment standards for metals, EPA does not consider stabilization an acceptable treatment



method for cyanide wastes. Cyanide containing wastes must undergo some type of destruction in order to comply with the treatment standard(s).

Concerning the four items outlined in your letter, Region I offers the following:

1. "Are tanks, piping, flooring correctly represented as F006 or F007 when resultant of minor contamination such as the situation described?"

As stated above, according to the "mixture rule", 40 C.F.R. § 261.3(a)(2)(iv), a "solid waste" mixed with a hazardous waste is defined as a hazardous waste. This debris, therefore, would be identified as F006 or F007 if contaminated by these wastes.

2. "After a complete decon with the resulting analysis showing the hazardous constituents at much less than the 268.41(a) and 268.43(a) standards, are the debris still required to go to a RCRA hazardous waste landfill?"

First, it should be noted that a waste is never required to go to a landfill. A waste which meets the LDR treatment standards is eligible for disposal in a hazardous waste landfill, but further treatment is never precluded.

If an attempt is made to decontaminate the debris in order to meet the LDR treatment standards, the debris would remain a listed waste and all resultant decontamination waters, etc. would also carry these waste codes due to the "derived from" rule found at 40 C.F.R. § 261.3(c)(2)(i). To verify that the treatment standards have been met throughout the contaminated debris, a TCLP (and a total waste analysis for cyanide contamination) would have to be done on a representative sample of the debris and at several different intervals in the waste matrix. That is, analytical verification would be necessary to show that contaminant concentration was below the treatment standard(s) throughout the concrete debris, for example. Once it is verified that all treatment standards have been met, the waste may be disposed of in a "Subtitle C" hazardous waste landfill, again, carrying the F006 and/or F007 waste code.

3. "If, after deconning, subsequent analysis of the area showed all F006 and F007 constituents as "None Detected", would the debris still be required to go to a RCRA hazardous waste landfill?"

Yes. 40 C.F.R. § 261.3(c)(1) states that "Unless and until it meets the criteria of paragraph (d): A hazardous waste will remain a hazardous waste." Paragraph (d)(2) states that a waste identified in paragraph (c) which is a listed waste, or derived



U.S. EPA, Waste Treatment Branch  
August 15, 1990  
Page 2

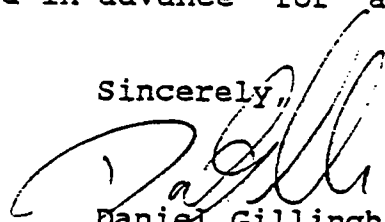
The alternative would be to decon the various equipment through high pressure washing with a suitable cleaning agent. The rinse from this would be collected and disposed of as an F006 or F007 due to the mixture rule again. The equipment would be tested for F006 or F007 constituents and confirmed to be below the treatment standards of 268.41(a) and 268.43(a) at which time it would be disposed of in a RCRA hazardous waste landfill as an F006 or F007 meeting treatment standards (due to the "derived from rule" of 261.3(c)(2)(i)).

That is my interpretation of the given situation. What has surfaced in the past are numerous questions that I would request you answer individually and provide the appropriate reference in 40CFR so that I find the regulations you are referring to for your interpretation.

1. Are tanks, piping, flooring correctly represented as F006 or F007 when resultant of minor contamination such as the situation described?
2. After a complete decon with the resulting analysis showing the hazardous constituents at much less than the 268.41(a) and 268.43(a) standards, are the debris still required to go to a RCRA hazardous waste landfill?
3. If, after deconning, subsequent analysis of the area showed all F006 and F007 constituents as "None Detected", would the debris still be required to go to a RCRA hazardous waste landfill?
4. Are there any standards for closures of Large Quantity Generator facilities as there are for TSDF's?

I would like to thank you in advance for addressing this situation in a written reply.

Sincerely,



Daniel Gillingham  
Inside Sales Manager

DG/det

April 18, 1990

Mr. Edward Cook  
Bridgeport Metal Goods Mfg. Co.  
365 Cherry St.  
Bridgeport, CT 06605

Dear Mr. Cook;

In response to our telephone conversation of April 12, the following information is being provided to clarify the RCRA requirements for spent carbon and solvent waste we discussed.

Spent trichloroethylene is a RCRA hazardous waste, it is a listed waste (hazardous waste No. F001) as defined in 40 CFR Part 261 Subpart D. The mixture of carbon and spent trichloroethylene must be handled as a hazardous waste. This waste is subject to the provisions of 40 CFR Part 268, land disposal prohibitions. Manifesting requirements (as required by 40 CFR Part 262 and Part 268) for this restricted waste must be followed. The Best Demonstrated Available Technology, from which treatment standards have been set, for trichloroethylene is incineration.

If you have any further questions concerning the above information you may call me at (617) 573-9677.

Sincerely,

Richard Piligian  
CT Waste Regulation Section



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

OCT - 3 1991

Mr. Stergios Spanos  
New Hampshire Department of Environmental Services  
Hazardous Waste Compliance Section  
6 Hazen Drive  
Concord, NH 03301-6509

Dear Stergios:

This letter is a followup to our telephone conversation on September 20, 1991, to request Region I's interpretation of the generator tank requirements cited in the "Inspection Procedures" section of Appendix III, Table III-1, page 13 of the RCRA Inspection Manual. Specifically, you requested an interpretation of paragraph three on page 13 which states that less-than-90-day hazardous waste storage tanks must be emptied every ninety days by a generator.

Your request was prompted by a specific tank inspection conducted by the New Hampshire Department of Environmental Services (NH DES) at a generator facility. During this inspection, you stated that New Hampshire inspectors observed a generator storing hazardous waste in a six thousand gallon capacity tank.

Your inspection determined that the hazardous waste tank was never completely emptied. This determination was based on a review of the hazardous waste manifests, waste inventory logs, and statements by the generator. In these statements, the generator explained that capacity of the existing storage tank (six thousand gallons) exceeded the capacity of the vehicle (four thousand gallons) used to transport the hazardous waste off-site.

As a result of your findings described above, you believe a conflict exists with Appendix III, Table III-1, page 13 of the RCRA Inspection Manual. Specifically, you believe that the hazardous waste that remains in the storage tank after manifesting violates the RCRA Inspection Manual guidance that states that hazardous waste storage tanks must be emptied every ninety days by a generator.

Region I believes the ninety day "emptying" requirement refers to the hazardous waste placed in a tank. This section of the RCRA Inspection Manual only refers to generator requirements. To maintain generator status, hazardous waste must be stored for less than ninety days. The intent of this requirement is to determine if a facility is operating as a generator.



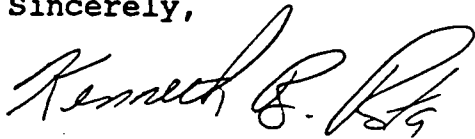
The Region's interpretation is further supported by the RCRA Inspection Manual which references 40 C.F.R. §§ 262.34(a-c) in the "Inspection Procedures" section contained in Appendix III, Table III-1 on page 13. These requirements exempt a facility from a RCRA permit provided hazardous wastes are stored for less than 90 days on-site and the containers/tanks used to store the wastes conform to specific marking and labeling requirements.

For the situation you have presented, the total cumulative volume of the manifested shipments for a ninety day period must be equal or greater than the total cumulative volume of hazardous waste generated and stored in the tank system for the ninety day period preceding those shipments to retain the conditional exemption.

If hazardous wastes were found to be stored for greater-than-90 days, Appendix III, Table III-1, page 87 (Subpart J - Interim Status) or page 130 (Subpart J - Permitted Unit) of the RCRA Inspection Manual would apply.

Please call me if you have any question or if I can provide any assistance. My telephone number is (617) 573-5759.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kenneth B. Rota".

Kenneth B. Rota  
Environmental Scientist  
RCRA Support Section

Mr. Charles Fox, Jr.  
Candia, New Hampshire 03034

Dear Mr. Fox:

This letter is in response to your letter of September 17, 1991, regarding the Kinnicaum Fish and Game Club on Palmer Road in Candia, New Hampshire. In your letter you relayed your concern with the Club's practice of shooting lead bullets into a mound of earth. You also indicated that the EPA should take some action at the Club to "clean up the present situation and make provisions for the future protection of the site from further pollution."

First, let me just take this opportunity to thank you for voicing your concerns. It is through concerned and conscientious citizens such as yourself that EPA is able to make great strides in achieving its environmental protection goals. However, the EPA has previously investigated the applicability of the Resource Conservation and Recovery Act (RCRA) regulations to shooting ranges. EPA has determined that the discharge of ball and sport ammunition at shooting ranges is not considered a hazardous waste or solid waste activity falling under the jurisdiction of RCRA.

In a letter dated September 6, 1988 from Sylvia K. Lowrance, the Director of the EPA Office of Solid Waste to Ms. Jane Magee the Assistant Commissioner for Indiana's Solid and Hazardous Waste Management, EPA addressed the issue of the applicability of RCRA to shooting ranges. In that letter, Ms. Lowrance stated EPA's position as follows:

The discharge of ball and sport ammunition at shooting ranges does not, in our opinion, constitute hazardous waste disposal. This is because we do not consider the rounds to be discarded, which is a necessary criterion to be met before a material can be considered a solid waste and, subsequently, a hazardous waste. Rather, the shooting of bullets is within the normal and expected use pattern of the manufactured product. This interpretation extends to the expended cartridges and unexploded bullets that fall to the ground during the shooting exercise. The situation, in our mind, is analogous to the use of pesticides whereby the expected, normal use of a pesticide may result in some

discharge to the soils. This is a discharge incident to normal product use and is not considered a hazardous or solid waste activity falling under the jurisdiction of RCRA.

EPA Region I appreciates your interest in this matter. If you have any questions or require any further information please contact Richard M. Filosa of the Waste Management Division at (617) 573-5777.

Sincerely,

Julie Belaga  
Regional Administrator

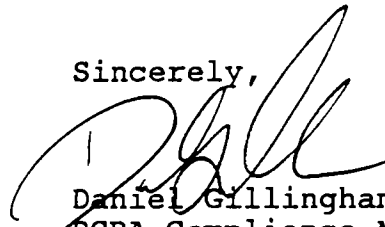
bcc:Mary Jane O'Donnell, EPA-WMD  
Richard M. Filosa, EPA-WMD

EPA/Office of Solid Waste  
August 20, 1991  
Page 2

5. In a slightly revised scenario, can spills of RCRA wastes be absorbed with absorbents and then this absorbent be disposed of as RCRA Hazardous Waste in bulk to a RCRA permitted landfill?

Thank you in advance for replying to this clarification of the regulations.

Sincerely,



Daniel Gillingham  
RCRA Compliance Manager

DG/blr



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

August 5, 1991

Daniel Gillingham, RCRA Compliance Manager  
Franklin Environmental Services, Inc.  
185 Industrial Road  
P.O. Box 617  
Wrentham, MA 02093

Dear Mr. Gillingham:

This letter is in response to your July 12, 1991 letter in which you are requesting Region I's interpretation of the proper hazardous waste classification of soils that are found to have measurable levels of solvents listed in 40 C.F.R. § 261.31 or § 261.33(f). Your concern is focused on the selection of the appropriate EPA waste code (i.e. F, U or D codes) for contaminated soils where the source of the contamination can not be ascertained (either physically or historically).

This issue has generally, in the past, been determined by either EPA or the authorized State environmental agency on a case by case basis. All Region I States are authorized to administer their analog to the federal requirements found at 40 C.F.R. Part 261; these States may support a rationale different from the one outlined below. There are currently no OSWER directives or other guidance documents that pertain to this issue. Region I is, therefore, identifying herein the criteria and issues that Franklin Environmental Services, Inc. should be aware of when classifying soils of this nature.

Applicability of F-Codes to Contaminated Soils

Generally speaking, if a contaminated soil has detectable levels of any of the constituents listed in 40 C.F.R. § 261.31 and there is historical documentation that indicates that these levels can be attributed, in part or in whole, to spent solvents, the appropriate F-code should be applied (i.e. F002, F003, F005, etc.). Region I, in assessing the classification of a contaminated soil, would not necessarily employ a "worst case" scenario (i.e., most stringent treatment standard pursuant to 40 C.F.R. Part 268) in the absence of historical or physical data. The conclusiveness of this data and the specifics of the case would be a deciding factor in determining whether this classification is warranted or not.



classification of contaminated soils have, and will continue to be the key factor in applying appropriate EPA waste codes to them. Therefore, applying this interpretation in a purely quantitative aspect would be inappropriate.

If you have any additional questions or concerns on this matter, please contact either John Gauthier at (617) 573-9629 or Robert Cianciarulo at (617) 573-5778.

Sincerely,



Merrill S. Hohman, Director  
Waste Management Division

cc: F. Ciavattieri  
J. Blumstein  
WMD Branch Chiefs  
RCRA Section Chiefs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

8/91

**Dear Automotive Service Station Owner:**

This summary is intended to provide an update on the status of some of the current regulatory requirements for automotive service industry (ASI) wastes that may now be hazardous as a result of the Toxicity Characteristic (TC) rule. To date, some of these issues have been resolved. Others are in the process of being determined at the State, EPA Regional and Headquarters levels.

**Background Information**

Generally speaking, solid wastes (as defined in 40 CFR § 261.2) are hazardous if they are either specifically listed in 40 CFR Part 261, Subpart D, or if they exhibit a characteristic of a hazardous waste (i.e. ignitability, corrosivity, reactivity or toxicity) as defined in 40 CFR Part 261, Subpart C. The focus of this summary will deal with changes that have been enacted to the characteristic of toxicity and what affect they have had on some of the common wastes generated by the ASI.

The Hazardous and Solid Waste Amendments of 1984 (HSWA) to the Resource Conservation and Recovery Act of 1976 (RCRA) mandated that EPA reassess the criteria and test method that determine the characteristic of toxicity. The former test, the Extraction Procedure Toxicity Characteristic (EP Tox), which had been the test used since 1980 to define toxicity, was comprised of eight heavy metals and six pesticides/herbicides (EPA Hazardous Waste Codes D004 through D017).

On March 29, 1990 (as published in Volume 55 of the Federal Register (FR), beginning on page 11798), EPA expanded the list of characteristic toxic wastes and incorporated a new test method to replace the EP Tox method. The original list of fourteen constituents had twenty-five new organic constituents (EPA Hazardous Waste Codes D018 -D043) added to it. These revisions also introduced the Toxicity Characteristic Leaching Procedure, or TCLP as the replacement test method for EP Tox, to determine the toxic characteristic of a waste.

These revisions, referred to as the Toxicity Characteristic, or TC Rule required affected new generators and treatment, storage and disposal (TSD) facilities to submit notifications, applications and/or modifications at various set dates in order to continue managing these newly toxic wastes. Generally speaking, large quantity generators and treatment, storage and disposal facilities had to begin complying with the TC rule by September 18, 1991, and small quantity generators had until March 20, 1992 to comply.



require generators to comply with hazardous waste regulations regardless of the quantity of hazardous waste generated. Since all of the States in Region I are authorized for, at a minimum, the base RCRA program, this could mean that many CESQGs would need to comply with many of the standards applicable to generators of larger quantities. Consulting your appropriate State environmental agency is essential before determining whether the Federal CESQG status is applicable to your business or not.

### Waste Oil

Current Federal regulations pertaining to waste oil, in general, have not been affected by the TC rule. Waste oils that are handled in accordance with 40 CFR Part 266 or 40 CFR § 261.6(a)(3)(iii) are currently not Federally regulated as hazardous wastes. These provisions state, generally, that waste oils that are to be burned for energy recovery or recycled in other manners are not regulated as a hazardous waste. Many States, however, regulate waste oil as a special waste and have established additional requirements regarding handling, transportation, storage and disposal.

Manners of recycling that may be consistent with the above mentioned citations are re-refining waste oil into fuels, filtration of waste oil to regenerate usable oil, reusing waste oil as a lubricant, burning waste oil in on-site space heaters (that meet the requirements of § 266.41(b)(2)(iii)), or sending waste oil to an approved facility that will burn the waste oil in order to recover energy (i.e. produce heat, steam or electricity). This is a generalization of the methods of waste oil management that would be consistent, however there are additional constraints to some of these methods that should be reviewed in more detail. For a more detailed discussion on waste oil management, refer to the November 29, 1985 Federal Register publication (50 FR 49164).

Perceived "recycling" of used oil that would be deemed methods of illegal disposal and therefore potentially subject to hazardous waste regulation are road oiling for dust suppression, disposal in a solid waste landfill, disposal through a sewage, septic or dry well system or incineration with no means of energy recovery.

The EPA has recently promulgated new regulations for facilities that burn hazardous waste in boilers and industrial furnaces (BIFs). These regulations (referred to as the BIF Rule), effective August 21, 1991 will not affect used oil that is burned on-site in waste oil "space heater"-type units that meet the requirements of § 266.41(b)(2)(iii). Simply stated, this regulation requires space heaters to be of less than 500,000 BTU per hour in capacity; all oil to be generated from a service station and its individual tanks only; and combustion gases to be vented to the outside. If these conditions are met, the unit may not be subject to RCRA permitting.

above constituents. Though indicative of widespread contamination through use, the fact that only half of the samples failed the TCLP demonstrates that all automotive antifreeze may not be a hazardous waste once spent. EPA will continue to assess this issue and determine a proper response. At the present time, as always, generators of spent automotive antifreeze (or any other suspected solid wastes) should determine if it is a hazardous waste as required by 40 CFR § 262.11. If a generator determines that his spent antifreeze exhibits a characteristic of a hazardous waste, he should handle it accordingly.

EPA Headquarters' Office of Solid Waste is overseeing this issue. In the absence of additional information, Region I is emphasizing the importance of a generator's responsibility to make a proper characterization of all waste streams.

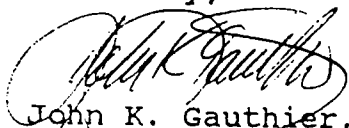
#### Chlorofluorocarbon (CFC) Refrigerants

Because of the TC rule, spent CFC (Freon™) refrigerants would be considered hazardous for detectable levels of carbon tetrachloride and chloroform. Since this waste is in the gaseous state at standard temperature and pressure, the potential for venting rather recycling of spent CFCs could increase if regulation as a hazardous waste is imposed. Since there has been an increased incentive in recent years to recycle CFCs for reclaim and reuse, imposing hazardous waste regulations on the storage of these containerized CFCs could prove to be a disincentive and subsequently encourage venting of CFCs to the atmosphere. CFCs are a known contributor to the reduction of stratospheric ozone. Therefore, EPA suspended the application of the TC to spent CFCs from totally enclosed heat exchange equipment that are reclaimed for further use.

CFC refrigerants that are recaptured and reclaimed for future use are exempt from the TC Rule pursuant to 40 CFR § 261.4(b)(12) as published in 56 FR 5910 on February 13, 1991.

If you have additional questions or concerns on these issues, you may contact me at (617) 573-9629.

Sincerely,



John K. Gauthier,  
Chemical Engineer  
Waste Management Division

August 1991



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

June 11, 1991

Mr. Philip Smith, V.P. Sales & Marketing  
Tri-S Incorporated  
25 Pinney Street  
Ellington, CT 06029

Dear Mr. Smith:

I am responding to your letter sent to the Regional Administrator on March 14, 1991. I would first like to apologize for the delay in issuing a reply to your request. In your letter, you are requesting an EPA determination on whether the fluorescent bulbs that you are bidding for disposal of would be deemed a hazardous waste.

Based on the information outlined in your letter it appears that you are correct in assuming that the bulbs would be a hazardous waste by exhibiting the toxicity characteristic (TC) for mercury at levels in excess of those outlined in 40 C.F.R. § 261.24. You stated that this determination was made by testing a crushed bulb via the TCLP method. This appears to be appropriate protocol, and the applicable EPA waste code would indeed be D009 for this waste.

The fact fluorescent bulbs fail the TC for mercury is consistent with information that is being compiled by EPA at this time. In addition to mercury, levels of cadmium that exceed the regulatory levels for the TC have also been reported. Whether all fluorescent bulbs would be hazardous waste (for mercury or cadmium levels) or not when they are to be disposed of, depends upon the type, manufacturer, and age of the bulbs. In the absence of definitive knowledge of the levels of these metals attributable to each bulb, testing via the TCLP would be the recommended procedure to make that determination. The state of California, in fact, regulates fluorescent bulbs as a hazardous waste.

Therefore, based on your letter, and in the absence of additional data, the fluorescent bulbs should be handled and disposed of as a hazardous waste. If you have any additional questions or concerns, please do not hesitate to call me at (617) 573-9629.

Sincerely,

John K. Gauthier,  
Chemical Engineer  
Waste Management Division





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

5/21/91

Daniel Gillingham  
RCRA Compliance Officer  
Franklin Environmental Services, Inc.  
185 Industrial Road  
P.O. Box 617  
Wrentham, MA 02093

Dear Mr. Gillingham:

This letter is written in response to your April 3, 1991 request for clarification concerning the "empty container" regulations as they relate to the residues and "heels" of hazardous waste that typically remain in a bulk liquid tanker after off-loading.

Question:

"If a truck is off-loaded and, after completion of off-loading, the tank now meets the definition of an "empty container" of 40 CFR 261 (i.e.; Assuming a 5,000 gallon tanker, there is approximately ten gallons of residual waste remaining in the truck that cannot be further removed by common procedures usually associated with off-loading trucks (267.7(b)(1)). This ten gallons is less than the "0.3%" criteria of the empty container definition.) Would this truck then be allowed under current regulations to go to a commercial truck wash facility whose discharge is regulated by the Clean Water Act to completely wash out its remaining residuals so that the next load the truck carried did not become cross contaminated with any of the residuals, or would this residue still be considered a hazardous waste and this washing-out at a commercial truck wash facility not be allowed under RCRA regulations as the truck wash facility is not a permitted RCRA treatment or disposal facility."

Response:

Region I believes there are additional issues raised by this question which must be addressed to completely answer your hypothetical question. The proper regulatory citation for empty containers is 40 C.F.R. § 261.7(b)(1)(i). To answer the first part of your question, the "empty" tanker truck is not prohibited under RCRA to go to a commercial truck wash facility. Although the tanker may be considered legally "empty" under RCRA, this does not pre-empt or replace the definition of "empty" as defined by the Department of Transportation regulations under 49 C.F.R. which generally recommends a steam cleaning procedure as the minimal requirement to qualify as an "empty" tank.



The actual rinsing/cleaning procedure, however, raises a number of regulatory issues. For example, if the rinseate exhibits the characteristic of a hazardous waste, the entire volume is subject to the applicable provisions of RCRA. Upon meeting the definition of a hazardous waste, the generator must be determined. If your employee conducts the cleaning, you become the generator of a hazardous waste. Likewise, if the commercial truck wash facility personnel conducts the cleaning/rinsing, the facility becomes the generator of a hazardous waste (if it exhibits the characteristic) unless the facility acts as your agent, in which case, you would remain the generator.

With respect to the portion of your question that states the truck washing facility has a regulated discharge under the Clean Water Act, if the allowable concentration limits for hazardous waste/constituents found in the "regulated" discharge can be achieved in a manner not constituting improper dilution, the discharge would not be regulated under RCRA.

Since the cleaning/rinsing procedure is a waste generation process, if the waste generated is hazardous, the waste will become subject to the land disposal restrictions requirements (unless the waste is regulated as a TCLP hazardous waste which is not currently subject to land disposal restrictions requirements). Tank cleaning/rinsing procedures which are not beneficial and do not contribute to the cleaning process are considered to be an improper dilution of land disposal restricted wastes.

best to answer by the RCRA and CERCLA provisions.

#### Question:

"In a second scenario, if the ten gallons or less of residue in the 5,000 gallon tanker would classify the tank car as "empty" under 40 CFR 261.7, then if the tank car was brought to another site to be completely purged so as to prevent future cross contamination, would any of the waste generated from this cleaning be considered a hazardous waste due to the "mixture" and/or "derived from" rules if the residue was from a "listed" waste that the tank car originally transported? Or, since the residue being washed out is from an "empty" tank, the "mixture" and "derived from" rule have no application and the only criteria that needs to be considered is if the resultant mixture exhibits any characteristics of a hazardous waste from 40 CFR 261.21, .22, .23 and .24"

#### Response:

Region I believes that any tank car waste generated in the manner as described above from a tanker which is legally "empty" under RCRA can only be classified as hazardous waste based on the characteristic of the resultant mixture. A hazardous waste cannot be "derived from" or qualify as a "mixture" from a tanker which is legally "empty".

**Question:**

"The third question revolves around the manifesting requirements if a tank car does not meet the definition of "empty" when off-loaded at the TSDF. Does this situation require the TSDF to become the generator for a shipment back to the original generator where it can be cleaned and purged, or can it travel back on the original manifest with a notation in the Discrepancy Section of how many gallons not able to be off-loaded."

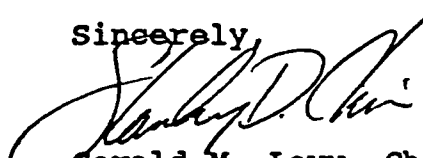
**Response:**

Region I believes that 40 C.F.R. § 263.21(a) clearly states that the transporter must deliver the entire quantity of hazardous waste accepted for shipment to the designated TSD or alternate designated TSD or revise the manifest in accordance to the generator's instructions for the entire volume of waste received.

For those situations in which the off-loaded volume at the TSD is less than the initial volume received from the generator, if the tanker qualifies as legally "empty", Region I would consider the entire volume to be delivered for purposes of 40 C.F.R. § 263.21(a). A manifest discrepancy would be required in the appropriate section of the hazardous waste manifest.

If you have any questions concerning these responses, please contact Kenneth Rota of my staff at (617) 573-5759.

Sincerely,

  
Gerald M. Levy, Chief  
MA Waste Management Branch



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

November 23, 1992

Michael Worthy  
ENSR Consulting and Engineering  
35 Nagog Park  
Acton, MA 01720

Ref: Re-Solve, Inc. Superfund Site: Source Control Remedy - Offsite  
Disposal of Organic Liquid from X\*TRAX System Which Contains  
Low Levels of Dioxin

Dear Mr. Worthy:

The United States Environmental Protection Agency (EPA) is in receipt of your letter dated November 13, 1992 regarding Chemical Waste Management, Inc.'s (CWM's) disposal of organic liquids produced by the X\*TRAX system which contain low levels of dioxin. Specifically, the letter asks for EPA's confirmation that the subject organic liquid is a non-listed dioxin waste under RCRA and further that the dioxin at Re-Solve does not result from the manufacturing processes covered by RCRA waste codes F020 to F023, F026 to F028, F039, K043 and K099. In a related matter, your letter also requests EPA's determination on the acceptability status of three (3) incineration disposal facilities which CWM is contemplating using for the off-site disposal of the subject organic liquid.

EPA has reviewed your November 13, 1992 letter and the RCRA regulatory status of the organic liquid generated from the X\*TRAX system being employed at the ReSolve. Based on our review and the information you have provided in your letter, it does not appear that the subject wastes can be identified as RCRA "listed" hazardous wastes.

Although the analytical results you have provided do show small quantities of dioxins and dioxin-producing compounds, the source of these compounds is not evident. The RCRA codes identified in CWM's October 19, 1992 letter to you, which is submitted as an attachment to your November 13, 1992 letter, do not apply to the waste unless evidence is present linking the compounds to the specific manufacturing processes. Specifically, EPA hazardous waste numbers F020, F021, F023, F026, F027, F028, K043, and K099 (identified in 40 C.F.R. § 261.31 and § 261.32) relate to specific manufacturing processes and/or uses. Unless these processes/uses can be linked to the activities and/or wastes at the site, these waste codes would be inappropriate.



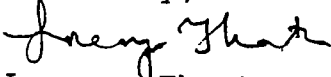
In addition, waste number F039, or "multi-source leachate", would only apply if the waste was a leachate resulting from the disposal of one or more "listed" wastes (not including the "dioxin" "F" codes identified above), and therefore does not apply in this situation. Therefore, since no "listed" dioxin waste codes apply, the waste would be considered hazardous under RCRA only if some other "listed" waste codes applied (e.g., F001-F005 "spent solvents") or if the waste exhibited one or more of the RCRA "characteristics" found at 40 C.F.R. § 261.20 through § 261.24). The procedures on determination of whether waste exhibited one or more of the RCRA "characteristics" have been addressed satisfactorily in both CWM's letters dated October 19, 1992 (submitted as an attachment to your November 13, 1992 letter) and September 24, 1992 (submitted as an attachment to your separate October 15, 1992 letter in reference to waste code classification prior to off-site disposal).

Please note that separate State hazardous waste codes may apply to such wastes. Therefore, State hazardous waste regulations should be consulted.

With regard to your request for EPA's determination on the acceptability status of three (3) incineration disposal facilities, please provide to me the EPA I.D. codes for each of these facilities. I will have the acceptability status checked for each of these three facilities once I have received the EPA I.D. codes from you.

If you have any questions, please contact me at (617) 223-5500.

Sincerely,



Lorenzo Thantu  
Remedial Project Manager

cc: Richard Cavagnero, EPA  
Phoebe Call, BEI  
Stan Chin, EPA  
Bob Cianciarulo, EPA  
Debra Darby, DEP  
Michael Last, Mintz Levin  
~~Kenneth Rofa, EPA~~  
Lorenzo Thantu, EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
J.F.K. FEDERAL BUILDING, BOSTON, MA 02203-2211

MEMORANDUM

DATE: November 19, 1992

SUBJ: Status of Dioxin-Containing Wastes at ReSolve Superfund Site

FROM: Kenneth B. Rota, Environmental Protection Specialist *KBR*  
RCRA Support Section

TO: Lorenzo Thantu, Remedial Project Manager  
MA I Superfund Section

This memo is regarding the RCRA regulatory status of the organic liquid generated from the X\*TRAX system being employed at the ReSolve Superfund Site. Based on our discussions and the information you have provided me it does not appear that these wastes can be identified as RCRA "listed" hazardous wastes.

Although the analytical results you have provided do show small quantities of dioxins and dioxin-producing compounds, the source of these compounds is not evident. The EPA waste codes identified in Chemical Waste Management's October 19, 1992 letter to Mr. Michael Worthy of ENSR Consulting and Engineering do not apply to the waste unless evidence is present linking the compounds to the specific manufacturing processes. Specifically, EPA hazardous waste numbers F020, F021, F023, F026, F027, F028, K043, and K099 (identified in 40 C.F.R. § 261.31 and § 261.32), relate to specific manufacturing processes and/or uses. Unless these processes/uses can be linked to the activities and/or wastes at the site, these waste codes would be inappropriate. Additionally, waste number F039, or "multi-source leachate", would only apply if the waste was leachate resulting from the disposal of one or more "listed" wastes (not including the "dioxin" "F" codes identified above) and, therefore, does not apply in this situation. Therefore, since no "listed" dioxin waste codes apply, the waste would be considered hazardous under RCRA only if some other "listed" waste codes applied (e.g., F001-F005 "spent solvents") or if the waste exhibited one or more of the RCRA "characteristics" found at 40 C.F.R. § 261.20 through § 261.24). Separate State hazardous waste codes may also apply to such wastes. Therefore, State hazardous waste regulations should also be consulted.

If you have any further questions on the RCRA status of this waste, or other RCRA issues, feel free to call me at 573-5759.

cc: Bob Cianciarulo  
Stan Chin



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

November 10, 1992

Richard Cambio  
Building 615-2, Dept. 728  
1000 River Street  
International Business Machine Corporation  
Essex Junction, Vermont 05452

Dear Mr. Cambio:

This letter is in response to D. B. Sargent's letter of August 26, 1992 to Matthew Hoagland. In Mr. Sargent's letter, IBM requested a written statement from EPA regarding IBM's proposal to re-deposit excavated soil within the Point of Compliance (POC). As Mr. Sargent's letter noted the critical issue is whether the re-depositing of this soil constitutes "placement" of hazardous waste, and therefore triggers "Land Ban." It must be noted that the POC concept is applicable to only one corrective action area at the IBM facility, and that is at the landfill. Further, it must be noted that the POC as currently defined in the Permit is located along the edges of the landfill.

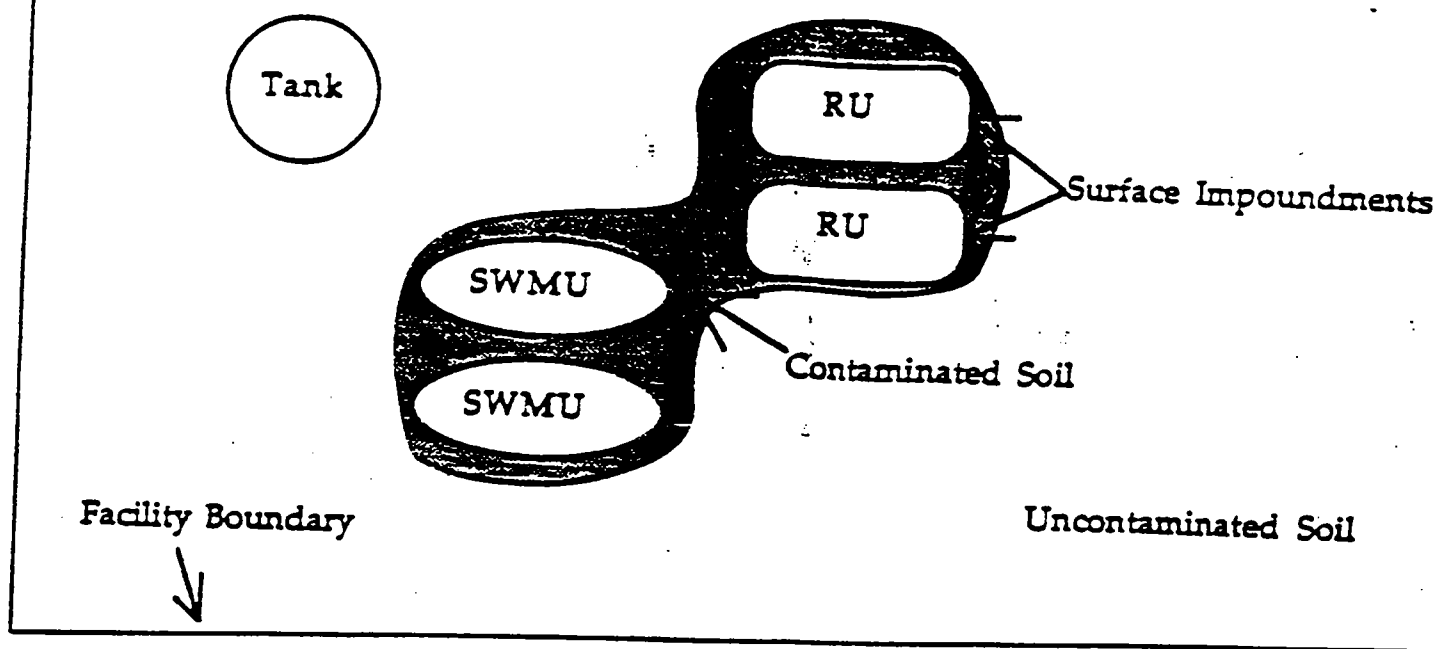
In formulating EPA's position on this issue, among other documents, EPA has looked to its Superfund Land Disposal Restriction documentation for guidance. Specifically, EPA has looked to Superfund LDR Guide #5 entitled Determining When Land Disposal Restrictions (LDRs) are Applicable to CERCLA Response Actions. Accordingly, EPA has determined that the re-depositing of excavated soil within the POC may not constitute "placement" provided certain circumstances are met.

First, the POC must be viewed as equivalent to the Solid Waste Management Unit (SWMU). Accordingly, EPA is modifying the Permit to make it clear that the POC as detailed in your letter is reflected in the Permit, and that the edge of the landfill is considered to extend out to that POC. Essentially, the Permit will be modified to make clear EPA's intent that the POC coincides with the edge of the landfill (SWMU). Therefore, the excavation and re-deposit of soil will be considered to take place within the unit.

Placement occurs when wastes are moved from one unit into another unit. Placement does not occur when wastes are left in place, or moved within a single unit.



FIGURE 2  
REGULATED LANDFILL



- The unit boundaries of the original regulated units that were specified on the Part A or Part B application would have to be redesignated to encompass the entire new landfill unit, according to the applicable procedures in 40 CFR §§ 270.72, 270.41 or 270.42.
- The landfill would have to comply with applicable Part 264 or 265 requirements for landfills, including the Subpart F ground water monitoring requirements and Subpart G closure and post-closure requirements. Subpart F requirements would generally involve installation of additional ground water monitoring wells. Compliance with Subpart G would likely also require modifications to the closure and post-closure plans for the unit.

MTRs would not necessarily apply to these newly designated regulated landfills. If the original regulated unit located within the landfill was not subject to the MTRs (i.e., the landfill was not new or expanding after 1984), the landfill could be considered by the Agency or authorized State to be a redesignation of that existing unit, rather than a lateral expansion. As such, the landfill would not be subject to the MTRs. However, if the regulated

unit encompassed by the landfill was originally subject to MTRs, the entire area of the landfill would be subject to MTRs.

#### SUMMARY

Existing regulatory standards (e.g., replacement of treatment residuals into the CAMU triggers the LDRs) cannot be waived to implement the CAMU concept prior to a final CAMU rulemaking. EPA is considering removing some of these limitations in the final rule. Nonetheless, despite these current limitations, there may be a number of situations where the use of landfills can yield substantial benefits in remediating sites. EPA recommends that the guidance provided in this fact sheet be used in evaluating the use of landfills to implement timely and protective corrective actions at RCRA facilities.

#### FOR FURTHER INFORMATION

Inquiries concerning the guidance contained in this fact sheet should be directed to Dave Fagan (202) 260-4497, or Anne Price (202) 260-6725.

# Determining When Land Disposal Restrictions (LDRs) Are Applicable to CERCLA Response Actions

CERCLA Section 121(d)(2) specifies that on-site Superfund remedial actions shall attain "other Federal standards, requirements, criteria, limitations, or more stringent State requirements that are determined to be legally applicable or relevant and appropriate (ARAR) to the specified circumstances at the site." In addition, the National Contingency Plan (NCP) requires that on-site removal actions attain ARARs to the extent practicable. On-site removal and remedial actions must comply with legally applicable requirements. This guide outlines the process used to determine whether the Resource Conservation and Recovery Act (RCRA) land disposal restrictions (LDRs) established under the Hazardous and Solid Waste Amendments (HSWA) are "applicable" to a CERCLA response action. More detailed guidance on Superfund compliance with the LDRs is being prepared by the Office of Solid Waste and Emergency Response (OSWER).

For the LDRs to be applicable to a CERCLA response, the action must constitute placement of a restricted RCRA hazardous waste. Therefore, site managers (OSCs, RPMs) must answer three separate questions to determine if the LDRs are applicable:

- (1) Does the response action constitute placement?
- (2) Is the CERCLA substance being placed also a RCRA hazardous waste? and if so
- (3) Is the RCRA waste restricted under the LDRs?

Site managers also must determine if the CERCLA substances are California list wastes, which are a distinct category of RCRA hazardous wastes restricted under the LDRs (see Superfund LDR Guide #2).

## (1) DOES THE RESPONSE CONSTITUTE PLACEMENT?

The LDRs place specific restrictions (e.g., treatment of waste to concentration levels) on RCRA hazardous wastes prior to their placement in land disposal units. Therefore, a key determination is whether the response action will constitute placement of wastes into a land disposal unit. As defined by RCRA, land disposal units include landfills, surface impoundments, waste piles, injection wells, land treatment facilities, salt dome formations, underground mines or caves, and concrete bunkers or vaults. If a CERCLA response includes disposal of wastes in any of these types of off-site land disposal units, placement will occur. However, uncontrolled hazardous waste sites often have widespread and dispersed contamination, making the

concept of a RCRA unit less useful for actions involving on-site disposal of wastes. Therefore, to assist in defining when "placement" does and does not occur for CERCLA actions involving on-site disposal of wastes, EPA uses the concept of "areas of contamination" (AOCs), which may be viewed as equivalent to RCRA units, for the purposes of LDR applicability determinations.

An AOC is delineated by the areal extent (or boundary) of contiguous contamination. Such contamination must be continuous, but may contain varying types and concentrations of hazardous substances. Depending on site characteristics, one or more AOCs may be delineated. Highlight 1 provides some examples of AOCs.

### Highlight 1: EXAMPLES OF AREAS OF CONTAMINATION (AOCs)

- A waste source (e.g., waste pit, landfill, waste pile) and the surrounding contaminated soil.
- A waste source, and the sediments in a stream contaminated by the source, where the contamination is continuous from the source to the sediments.\*
- Several lagoons separated only by dikes, where the dikes are contaminated and the lagoons share a common liner.

\* The AOC does not include any contaminated surface or ground water that may be associated with the land-based waste source.

not on-site disposal placement occurs when wastes are moved from one AOC (or unit) into another AOC (or unit). Placement does not occur when wastes are left in place, or moved within a single AOC. Highlight 2 provides scenarios of when placement does and does not occur, as defined in the proposed NCP. The Agency is currently reevaluating the definition of placement prior to the promulgation of the final NCP, and therefore, these scenarios are subject to change.

### Highlight 2: PLACEMENT

Placement does occur when wastes are:

- Consolidated from different AOCs into a single AOC;
- Moved outside of an AOC (for treatment or storage, for example) and returned to the same or a different AOC; or
- Excavated from an AOC, placed in a separate unit, such as an incinerator or tank that is within the AOC, and redeposited into the same AOC.

Placement does not occur when wastes are:

- Treated in situ;
- Capped in place;
- Consolidated within the AOC; or
- Processed within the AOC (but not in a separate unit, such as a tank) to improve its structural stability (e.g., for capping or to support heavy machinery).

In summary, if placement on-site or off-site does not occur, the LDRs are not applicable to the Superfund action.

### (2) IS THE CERCLA SUBSTANCE A RCRA HAZARDOUS WASTE?

Because a CERCLA response must constitute placement of a restricted RCRA hazardous waste for the LDRs to be applicable, site managers must evaluate whether the contaminants at the CERCLA site are RCRA hazardous wastes. Highlight 3 briefly describes

the two types of RCRA hazardous wastes -- listed and characteristic wastes.

### Highlight 3: RCRA HAZARDOUS WASTES

A RCRA solid waste\* is hazardous if it is listed or exhibits a hazardous characteristic.

#### Listed RCRA Hazardous Wastes

Any waste listed in Subpart D of 40 CFR 261, including:

- F waste codes (Part 261.31)
- K waste codes (Part 261.32)
- P waste codes (Part 261.33(e))
- U waste codes (Part 261.33(f))

#### Characteristic RCRA Hazardous Wastes

Any waste exhibiting one of the following characteristics, as defined in 40 CFR 261:

- Ignitability
- Corrosivity
- Reactivity
- Extraction Procedure (EP) Toxicity

\* A solid waste is any material that is discarded or disposed of (i.e., abandoned, recycled in certain ways, or considered inherently waste-like). The waste may be solid, semi-solid, liquid, or a contained gaseous material. Exclusions from the definition (e.g., domestic sewage sludge) appear in 40 CFR 261.4(a). Exemptions (e.g., household wastes) are found in 40 CFR 261.4(b).

Site managers are not required to presume that a CERCLA hazardous substance is a RCRA hazardous waste unless there is affirmative evidence to support such a finding. Site managers, therefore, should use "reasonable efforts" to determine whether a substance is a RCRA listed or characteristic waste. (Current data collection efforts during CERCLA removal and

April 18, 1990

Mr. Edward Cook  
Bridgeport Metal Goods Mfg. Co.  
365 Cherry St.  
Bridgeport, CT 06605

Dear Mr. Cook;

In response to our telephone conversation of April 12, the following information is being provided to clarify the RCRA requirements for spent carbon and solvent waste we discussed.

Spent trichloroethylene is a RCRA hazardous waste, it is a listed waste (hazardous waste No. F001) as defined in 40 CFR Part 261 Subpart D. The mixture of carbon and spent trichloroethylene must be handled as a hazardous waste. This waste is subject to the provisions of 40 CFR Part 268, land disposal prohibitions. Manifesting requirements (as required by 40 CFR Part 262 and Part 268) for this restricted waste must be followed. The Best Demonstrated Available Technology, from which treatment standards have been set, for trichloroethylene is incineration.

If you have any further questions concerning the above information you may call me at (617) 573-9677.

Sincerely,

Richard Piligian  
CT Waste Regulation Section



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

## Certified Mail - Return Receipt Requested

October 14, 1992

James W. Baker, President and CEO  
Dayton Water Systems, Inc.  
1288 McCook Avenue  
Dayton, OH 45404

Dear Mr. Baker:

Pursuant to our meeting on October 1, 1992, the United States Environmental Protection Agency (EPA), Region I, has evaluated your information and other information regarding the status of spent ion exchange resins used to treat metal contaminated rinsewaters from electroplating operations, and has determined that these resins are F006 hazardous wastes. This interpretation was based on a review the process information submitted by you, and other information obtained by EPA.

To understand the basis for the determination above, a brief discussion of the regulatory status is as follows:

Dayton Water Systems has developed an ion exchange unit designed to remove heavy metals from contaminated rinsewaters from electroplating operations. This process, as described by yourself during our meeting on October 1, 1992, and in the literature provided to EPA during that meeting, collects rinsewaters contaminated with heavy metals from electroplating rinse tanks, feeds these contaminated rinsewaters through ion exchange resin columns to remove the heavy metals, and returns the treated water to the rinse baths.

The process, as described above, alters the chemical composition of the contaminated rinsewaters by removing the heavy metals, and is defined as treatment pursuant to 40 C.F.R. § 260.10 of the regulations. The ion exchange system, based on the literature and your description of the process, is also a totally enclosed treatment system as defined at 40 C.F.R. § 260.10 because the unit is directly connected to an industrial production process, and constructed in a manner which prevents the release of hazardous wastes or constituents into the environment during treatment.

The only wastes generated by this system are the spent ion exchange resins that become contaminated over time due to the removal of heavy metals and sludges generated by the ion exchange unit. Upon removal from the treatment system, the ion exchange



resins and the associated sludges are no longer part of the "closed loop" process and require a waste determination.

The ion exchange resins fall into several categories for waste classification purposes. First, upon removal, the contaminated ion exchange resins can no longer serve the purpose for which they were produced (metals removal) without further processing and are classified as spent materials pursuant to 40 C.F.R. § 261.1(c)(1). The contaminated ion exchange resins would be further classified as a sludge pursuant to 40 C.F.R. § 260.10 because they are solid, semi-solid, or liquid wastes generated from an industrial wastewater treatment system.

The source of these sludges are the contaminated rinsewaters produced by electroplating operations. Sludges generated from the treatment of contaminated rinsewaters (wastewaters) from electroplating operations are classified as EPA hazardous waste code F006 pursuant to 40 C.F.R. § 261.31(a) [A letter enclosed dated on May 5, 1987 from EPA Headquarters in Washington, D.C. addresses this same issue].

Dayton Water Systems proposes to regenerate the ion exchange resins from the units. A waste that is regenerated meets the definition of "reclaimed" as defined at 40 C.F.R. § 261.1(c)(4). A material that is reclaimed is also considered "recycled" as defined at 40 C.F.R. § 261.1(c)(7). Hazardous waste sludges that are recycled and are also listed in 40 C.F.R. § 261.31 are solid wastes pursuant to Table 1 pursuant to 40 C.F.R. § 261.2(c)(4).

As both a solid and hazardous waste, the ion exchange resins are subject to the generator requirements of 40 C.F.R. Part 262. Under federal law, this includes the use of a hazardous waste manifest for generators producing greater than 220 lbs of all hazardous wastes generated per month. The specific applicable regulatory requirements are also dependent on any State specific regulations that may be required by the particular State a generator may be located in.

During our October 1, 1992 meeting, you referred to the treatment system as being "totally enclosed". Your explanation of this "closed loop" process not only included the actual treatment system, but also the handling, shipment and treatment of the contaminated resins to off-site locations for ion resin regeneration and eventual metals recovery. As a point of clarification in this matter, the only "closed loop" part of this treatment system is the actual ion exchange unit and all related piping and equipment while the unit is in operation. Once wastes or other materials are removed from this treatment system, they no longer are part of this "closed loop" process, and are subject to the regulations.

The significance of the term "totally enclosed treatment system" is that any potential customer that may use this system would not be required to obtain a hazardous waste treatment facility permit

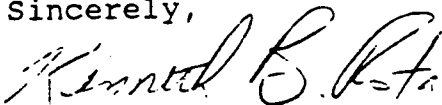
under Federal law pursuant to 40 C.F.R. § 265.1(c)(9) of the regulations. Again, this interpretation may differ depending on specific regulations required from State to State.

I should also inform you that I contacted the State of Ohio's Environmental Protection Agency regarding your letter dated October 11, 1990. This letter identified the ion exchange resins as characteristic sludges. The letter further stated that characteristic sludges that are reclaimed are not classified as solid waste, and, therefore, not subject to regulation under the Resource Conservation and Recovery Act (RCRA).

According to Ohio EPA officials, the characteristic sludge referenced in this letter referred to a specific type of sludge generated by a Minnesota facility [See Attachment]. This sludge was generated by one of your ion exchange units used to process coolant wastewaters generated by electrical discharge machining. This process is not an electroplating operation. The Ohio EPA will issue another letter better clarifying this issue to avoid any future misunderstandings between yourself and other regulatory agencies concerning the proper identification of this waste.

I appreciate the opportunity to provide technical assistance for Dayton Water Systems, Inc. in its efforts to comply with the RCRA regulations. Please call me at (617) 573-5759 if you have any questions regarding the issues addressed in this letter.

Sincerely,



Kenneth B. Rota, Environmental Protection Specialist  
U.S. Environmental Protection Agency  
Waste Management Division  
RCRA Enforcement Unit

cc: Ohio EPA  
RI DEM



William F. Weld  
Governor  
Daniel S. Greenbaum  
Commissioner

Commonwealth of Massachusetts  
Executive Office of Environmental Affairs  
**Department of  
Environmental Protection**

August 14, 1992

Mr. Merrill S. Hohman, Director  
Office of Waste Management  
U.S. Environmental Protection Agency  
Region I  
25 Canal Street  
Boston, MA 02114

RE: Fluorescent Light Bulb Recycling

Dear Mr. Hohman:

This is to advise EPA of the approach the Department intends to take in regulating fluorescent bulb recycle operations in the Commonwealth. This is the subject of a previous letter to you dated July 17, 1992.

I believe our stance on the matter recognizes the tremendous environmental benefits which will accrue from redirecting this waste stream away from solid waste landfills into channels for recovery of valuable materials, i.e., mercury, glass and scrap metal. It will offer a cost-effective incentive for users of mercury-laden fluorescent bulbs to recycle them and will allow a potential recycler a positive incentive to set up operations in the Commonwealth. Finally, this approach we believe provides a measured regulatory hand over this waste stream without burdening its management with inappropriate restrictions.

Accordingly, the following outlines the Department's policy and regulatory interpretation of 310 CMR 30.000 as it applies to the recycling of mercury-laden fluorescent bulbs:

1. Recycling of fluorescent light bulbs shall be conducted pursuant to a Class A Recycling permit for the recycling of regulated recyclable materials.

Fluorescent Bulb Recycling  
Page 2.

2. Used fluorescent light bulbs are regulated recyclable materials.
3. The collector of used mercury fluorescent light bulbs shall be considered a generator of hazardous waste at the point the collector deems the bulbs are of no further use as light bulbs and are suitable for recycling.
4. Collectors of fluorescent light bulbs shall have the discretion to defer the determination of when each bulb becomes waste until the bulbs are aggregated to a central collection point, usually the recycle center.
5. Transportation of used fluorescent light bulbs to a central collection point need not be by licensed hazardous waste transporter.
6. Because the designation of a used light bulb as "waste" and subsequently "hazardous waste" need not occur until aggregation at a central collection point, users of bulbs need not use a hazardous waste manifest when offering the bulbs to a collector.
7. A collector who aggregates used light bulbs at a central collection point for the purpose of recycling shall at all times perform recycling in compliance with the terms of its Class A recycling permit.

The Department considers this approach to be consistent with earlier policies regarding waste PCB transforms, used car batteries, and fluorescent lighting ballasts. Such discretion is allowed an authorized state in implementing its RCRA program. The Department sees no inconsistency between this state policy and any policy on the subject matter pronounced by EPA. Consequently, the Department is implementing the policy as of the date of this letter and is notifying interested parties, including persons who have indicated an interest in starting recycle operations in the Commonwealth.

Thank you for your understanding and cooperation in this matter.

Very truly yours,

Thomas Powers, Deputy Commissioner



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

October 13, 1992

Thomas Powers, Deputy Commissioner  
MA DEP - 7th Floor  
One Winter Street  
Boston, MA 02108

Dear Mr. Powers:

As you are aware our agencies have exchanged several letters and had numerous telephone conversations concerning the regulation of fluorescent light bulb recycling in Massachusetts.

Our recent discussions on August 13, 1992, centered around the role and responsibility of a delegated program and the ability of that program to make decisions that affect the implementation of such recycling programs in Massachusetts. As we discussed, we believe that where decisions are being rendered that are within the scope of the authorized program, Massachusetts has full responsibility for those decisions. EPA's role in those cases is generally limited to program overview.

However, I wish to remind you that as EPA issues future hazardous waste regulations in this or any other area, Massachusetts will be required to examine those regulations and make the necessary changes to maintain an authorized program that is "equivalent to" and "consistent with" the Federal program.

EPA expects to issue a proposed rule in the near future that is designed to ensure that hazardous wastes are recycled properly, without unnecessary regulation. One section of the proposed rule deals with hazardous waste light bulbs. For your information I have enclosed that section of the soon to be proposed rule.

I appreciate the time and effort your staff have devoted to this issue. If you have any additional questions please contact Gary Gosbee of my staff at 573-5741.

Sincerely,

Merrill S. Hohman, Director  
Waste Management Division

Enclosure

cc: Steve DeGabriele, MA DEP - Boston

COPY





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

August 11, 1992

Mr. Paul Josephson  
Department of the Army  
Headquarters Fort Devens  
Fort Devens, MA 01433-5190

COPY

Re: Letter Dated, July 14, 1992, Requesting an Interpretation of the Code of Federal Regulations

Dear Mr. Josephson:

This letter is a response to Fort Devens' request for an interpretation of the Code of Federal Regulations (CFR).

In order to reduce the amount of variables which will effect this response, we will assume that all of the waste in question will be burned for energy recovery. Also, we will assume that the waste diesel fuel and the used oil exhibit one of characteristics in 40 C.F.R. Part 261. The answers to your specific questions are as follows:

Waste # 1 - Waste Diesel Fuel

- a. Waste diesel fuel is not considered to be a used oil under the Federal Regulations. Therefore, 40 C.F.R. § 266.40 would not apply in this case. Waste diesel fuel, which is hazardous due to the ignitability characteristic, would be considered a hazardous waste burned for energy recovery and regulated under 40 C.F.R. Part 266, Subpart D. Nothing in Subpart D exempts this waste from the hazardous waste definitions given in 40 C.F.R. Part 261.
- b. 40 C.F.R. § 266.40 does not apply since the waste is not a used oil.

Waste # 2 - Used Oil Containing Listed Solvents

- a. F-codes should be used when an F-listed solvent is deliberately mixed with the used oil fuel. The 1000 ppm level becomes an issue when it is not known how the solvent got into the oil. In a policy known as the "rebuttal presumption", EPA states that used oil which contains greater than 1000 ppm of total halogens would be presumed to have been mixed with the oil. Such used oil would be a listed hazardous waste subject to the regulations governing the burning of hazardous waste for energy recovery, 40 C.F.R. § 266, Subpart D. Persons may rebut this presumption by demonstrating that the used oil does not



contain hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in 40 C.F.R. Part 261, Appendix VIII).

- b. Assuming that the oil exhibits one of the characteristics of a hazardous waste, the used oil fuel is a hazardous waste regardless of whether or not the concentration of halogens is greater than 1000 ppm. If the used oil fuel contains greater than 1000 ppm total halogens, then the waste is subject to Subpart D of 40 C.F.R., Part 266. If the used oil contains less than 1000 ppm total halogens, then the waste is subject Subpart E of Part 266.
- c. If the generator has knowledge that an F-listed solvent was used in the process and may have been released to the soil then you would assign an F-code to the soil. If the release was known to be used oil that was contaminated with less than 1000 ppm total halogens then the generator may presume the used oil not to be a listed solvent. Therefore, the soil would not be a listed solvent.
- d. No, the table determines whether or not a used oil fuel is specification or off-specification used oil fuel. Specification used oil fuel is subject only to the analysis and record keeping requirements under 40 C.F.R. § 266.43(b) (1) and (6).
- e. Yes, you would assign the waste code of the characteristic that is exhibited by the waste.

If you have any questions or need clarification, please call me at (617) 573-5747.

Sincerely,



Bryan Olson, Environmental Engineer  
MA & RI Waste Regulation Section

cc: Gary Gosbee, EPA  
Mary Sanderson, EPA  
John Kronopolus, DEP - Central Region



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

**Dear Automotive Service Station Owner:**

This summary is intended to provide an update on the status of some of the current regulatory requirements for automotive service industry (ASI) wastes that may now be hazardous as a result of the Toxicity Characteristic (TC) rule. To date, some of these issues have been resolved. Others are in the process of being determined at the State, EPA Regional and Headquarters levels.

## Background Information

Generally speaking, solid wastes (as defined in 40 CFR § 261.2) are hazardous if they are either specifically listed in 40 CFR Part 261, Subpart D, or if they exhibit a characteristic of a hazardous waste (i.e. ignitability, corrosivity, reactivity or toxicity) as defined in 40 CFR Part 261, Subpart C. The focus of this summary will deal with changes that have been enacted to the **characteristic of toxicity** and what affect they have had on some of the common wastes generated by the ASI.

The Hazardous and Solid Waste Amendments of 1984 (HSWA) to the Resource Conservation and Recovery Act of 1976 (RCRA) mandated that EPA reassess the criteria and test method that determine the characteristic of toxicity. The former test, the Extraction Procedure Toxicity Characteristic (EP Tox), which had been the test used since 1980 to define toxicity, was comprised of eight heavy metals and six pesticides/herbicides (EPA Hazardous Waste Codes D004 through D017).

On March 29, 1990 (as published in Volume 55 of the Federal Register (FR), beginning on page 11798), EPA expanded the list of characteristic toxic wastes and incorporated a new test method to replace the EP Tox method. The original list of fourteen constituents had twenty-five new organic constituents (EPA Hazardous Waste Codes D018 -D043) added to it. These revisions also introduced the Toxicity Characteristic Leaching Procedure, or TCLP as the replacement test method for EP Tox, to determine the toxic characteristic of a waste.

These revisions, referred to as the Toxicity Characteristic, or TC Rule required affected new generators and treatment, storage and disposal (TSD) facilities to submit notifications, applications and/or modifications at various set dates in order to continue managing these newly toxic wastes. Generally speaking, large quantity generators and treatment, storage and disposal facilities had to begin complying with the TC rule by September 17, 1991, and small quantity generators had until March 1, 1992.

SAVE IT

require generators to comply with hazardous waste regulations regardless of the quantity of hazardous waste generated. Since all of the States in Region I are authorized for, at a minimum, the base RCRA program, this could mean that many CESQGs would need to comply with many of the standards applicable to generators of larger quantities. Consulting your appropriate State environmental agency is essential before determining whether the Federal CESQG status is applicable to your business or not.

### Waste Oil

Current Federal regulations pertaining to waste oil, in general, have not been affected by the TC rule. Waste oils that are handled in accordance with 40 CFR Part 266 or 40 CFR § 261.6(a)(3)(iii) are currently not Federally regulated as hazardous wastes. These provisions state, generally, that waste oils that are to be burned for energy recovery or recycled in other manners are not regulated as a hazardous waste. Many States, however, regulate waste oil as a special waste and have established additional requirements regarding handling, transportation, storage and disposal.

Manners of recycling that may be consistent with the above mentioned citations are re-refining waste oil into fuels, filtration of waste oil to regenerate usable oil, reusing waste oil as a lubricant, burning waste oil in on-site space heaters (that meet the requirements of § 266.41(b)(2)(iii)), or sending waste oil to an approved facility that will burn the waste oil in order to recover energy (i.e. produce heat, steam or electricity). This is a generalization of the methods of waste oil management that would be consistent, however there are additional constraints to some of these methods that should be reviewed in more detail. For a more detailed discussion on waste oil management, refer to the November 29, 1985 Federal Register publication (50 FR 49164).

Perceived "recycling" of used oil that would be deemed methods of illegal disposal and therefore potentially subject to hazardous waste regulation are road oiling for dust suppression, disposal in a solid waste landfill, disposal through a sewage, septic or dry well system or incineration with no means of energy recovery.

The EPA has recently promulgated new regulations for facilities that burn hazardous waste in boilers and industrial furnaces (BIFs). These regulations (referred to as the BIF Rule), effective August 21, 1991 will not affect used oil that is burned on-site in waste oil "space heater"-type units that meet the requirements of § 266.41(b)(2)(iii). Simply stated, this regulation requires space heaters to be of less than 500,000 BTU per hour in capacity, to be generated from a service station and its immediate vicinity only; and must be subject to the same conditions as those subject to RCRA permit.

above constituents. Though indicative of widespread contamination through use, the fact that only half of the samples failed the TCLP demonstrates that all automotive antifreeze may not be a hazardous waste once spent. EPA will continue to assess this issue and determine a proper response. At the present time, as always, generators of spent automotive antifreeze (or any other suspected solid wastes) should determine if it is a hazardous waste as required by 40 CFR § 262.11. If a generator determines that his spent antifreeze exhibits a characteristic of a hazardous waste, he should handle it accordingly.

EPA Headquarters' Office of Solid Waste is overseeing this issue. In the absence of additional information, Region I is emphasizing the importance of a generator's responsibility to make a proper characterization of all waste streams.

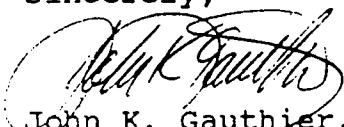
#### Chlorofluorocarbon (CFC) Refrigerants

Because of the TC rule, spent CFC (Freon<sup>™</sup>) refrigerants would be considered hazardous for detectable levels of carbon tetrachloride and chloroform. Since this waste is in the gaseous state at standard temperature and pressure, the potential for venting rather recycling of spent CFCs could increase if regulation as a hazardous waste is imposed. Since there has been an increased incentive in recent years to recycle CFCs for reclaim and reuse, imposing hazardous waste regulations on the storage of these containerized CFCs could prove to be a disincentive and subsequently encourage venting of CFCs to the atmosphere. CFCs are a known contributor to the reduction of stratospheric ozone. Therefore, EPA suspended the application of the TC to spent CFCs from totally enclosed heat exchange equipment that are reclaimed for further use.

CFC refrigerants that are recaptured and reclaimed for future use are exempt from the TC Rule pursuant to 40 CFR § 261.4(b)(12) as published in 56 FR 5910 on February 13, 1991.

If you have additional questions or concerns on these issues, you may contact me at (617) 573-9629.

Sincerely,



John K. Gauthier,  
Chemical Engineer  
Waste Management Division

August 1991



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

July 10, 1992

Mr. William C. Osborn  
Lighting Recycling, Inc.  
115 Buckminster Road  
Brookline, MA 02146

Dear Mr. Osborn:

The U.S. Environmental Protection Agency - Region I (EPA) has received and reviewed Lighting Recycling, Inc.'s (LRI) proposal for a mercury-bearing lamp recycling facility, dated May 21, 1992 (Proposal). EPA offers the following conclusions and recommendations regarding the Proposal.

EPA has determined that if the LRI facility accepts hazardous waste fluorescent lamps they would, when legitimately recycled, be considered a "recyclable material", as defined in 40 CFR § 261.6. The Proposal, as received by EPA appears to be a legitimate and promising means of recovering glass, aluminum and mercury from spent fluorescent and other mercury-bearing lamps.

Again, as stated in a previous letter on May 11, 1992, 40 CFR § 261.6(c)(2) states that owners or operators of facilities that recycle recyclable materials without storing them prior to recycling are subject to the notification requirements under section 3010 of RCRA, sections 265.71 and 265.72 of 40 CFR (manifest discrepancies), and the air emission standards set forth in subparts AA and BB of part 264 or 265.

EPA has determined that, based upon your proposal, since the recyclable materials accepted at your facility are introduced directly into process as received, no storage prior to recycling is occurring. Therefore, 40 CFR § 261.6(c)(2) does apply to LRI's proposed facility. LRI's proposed facility would not be subject to the hazardous waste permitting requirements of 40 CFR Part 270.

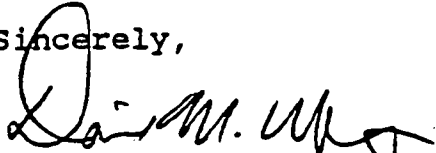
Facilities that store recyclable materials prior to recycling are subject to the requirements outlined in 40 CFR § 261.6(c)(1). Therefore, it is imperative to ensure that the facility, as designed and operated, can continue to effectively introduce materials into process as received without storage, or cease the acceptance of any recyclable materials in lieu of this occurring. Storage of recyclable materials prior to actual recycling would subject LRI to 40 CFR § 261.6(c)(1).



You should also be aware that the above conclusions and recommendations pertain only to the federal EPA requirements under the Resource Conservation and Recovery Act (RCRA). Many aspects of the RCRA program are delegated to and reflected in the MA DEP regulations in its 310 CMR 30.000 codification.

Therefore, it is inevitable by virtue of the RCRA authorization program, that there will be issues, such as those that have been discussed in this and previous letters that will require approvals and interpretations by either the EPA, MA DEP or both. Depending upon the authorization status of Massachusetts, EPA's conclusions and guidance on interpretive issues do not necessarily supersede those of the MA DEP. If you have any questions or concerns regarding the technical issues of this matter, please contact John Gauthier of my staff at (617) 573-9629. Questions regarding the RCRA authorization status of Massachusetts should be directed to Gary Gosbee, Chief of the Massachusetts Waste Regulation Section, at (617) 573-5740.

Sincerely,



David M. Webster, Chief  
ME & VT Waste Management Branch & RCRA Policy Lead

cc: G. Levy  
RCRA Section Chiefs  
N. Willard  
S. Dreeszen, MA DEP



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

May 12, 1992

Mr. Malcom Fox  
Enviroscope, Inc.  
101 N. Main Street  
Suite 150-137  
Ann Arbor, Michigan 48104

Dear Mr. Fox:

This letter is in response to your letter of January 22, 1992, requesting the Region's position regarding the applicability of the Resource Conservation and Recovery Act (RCRA) to solvent contaminated wipers. Initially, I wish to apologize for the delay in responding to your letter. This issue is one which has had a number of key issues affecting it both in the past and in the present. It was imperative that the Region carefully examine all of these factors before clarifying its position.

I would first like to stress that you should be aware that all of the states in Region I have been authorized to administer the base RCRA program, which includes issues associated with hazardous waste identification. Under this authorization, states enforce their own rules and regulations which have been deemed to be equivalent to those of the Federal program, but also which may be more stringent. Therefore, we encourage you to contact each state in the Region to determine their current position on the issue of applicability as well.

The Region has not previously formulated an official policy on the issue of solvent contaminated wipers. However, Region I believes that the solvent contaminated wipers are a hazardous waste and as such their handling must be in full compliance with the regulations under RCRA.

Under our interpretation of the RCRA regulations the contaminated wipers are solid waste when they are to be discarded, regardless of whether the wipers are to be laundered or thrown away, and regardless of how the solvent came in contact with the wiper.

The contaminated wipers are a spent material. (40 CFR § 261.1) If the wipers are being thrown away, then they are clearly being discarded. If the wipers are being laundered, then they are being reclaimed. Under either scenario the wipers are a solid waste as pursuant 40 CFR § 261.2.

Additionally, if the solid waste wipers are contaminated with a solvent listed in 40 CFR § 261.31, or exhibit a characteristic of a hazardous waste (40 CFR Section 261, Subpart C), they are a



hazardous waste. The basis for this decision can be found at 40 CFR § 261.3.

The real issue then becomes whether EPA is willing to create a limited exemption from the full RCRA regulatory scheme for solvent contaminated wipers that are to be reclaimed (laundered). The Region is not prepared to make such a determination at this time. We believe that any such exemption, if warranted, and the authority to do so, resides at the national level. As you are also aware, the Agency currently has two petitions on the national level pending, which seek such a regulatory exemption for contaminated solvent wipers.

If you have any further questions, please contact Richard Filosa of my staff at (617) 573-5777.

Sincerely,

*Frank Cavattini*

*fu* Merrill S. Hohman, Director  
Waste Management Division

cc: RCRA Branch Chiefs  
RCRA Section Chiefs  
RCRA State Coordinators  
Richard Filosa  
John Gauthier  
Robert Cianciarulo



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

May 11, 1992

Mr. William C. Osborn  
Lighting Recycling, Inc.  
115 Buckminster Road  
Brookline, MA 02146

Dear Mr. Osborn:

This letter is in response to your recent inquiries regarding the recycling of fluorescent bulbs to recover mercury. Over the past few months John Gauthier of my staff has had a number of discussions on the principle regulatory issues associated with this process, both with you and with a number of other federal, state and industry representatives. I have, in this letter, summarized those issues of greatest concern to both you and the U.S. Environmental Protection Agency, Region I (EPA), and hope to offer you some insight on the status of the recycling of hazardous wastes in a manner that is fully consistent with the existing federal regulations.

As Mr. Gauthier has mentioned to you previously, the key concern is whether or not the recycling process that you have proposed would be subject to hazardous waste permitting requirements pursuant to 40 CFR Part 270. In addition, I am aware that you have been in contact with Steven Dreeszen et al at the Massachusetts Department of Environmental Protection (MA DEP) to ascertain what requirements (i.e. Class A recycling permit) at the state level may additionally affect this type of operation.

**Background on Fluorescent Bulbs as Hazardous Waste**

In order to be considered a federal hazardous waste, any waste, must first meet the definition of a solid waste. A solid waste is defined in 40 CFR § 261.2. Simply stated, a solid waste is any discarded material that is not excluded under 40 CFR § 261.4(a). Under Section 261.4(a), there are specific wastes that are excluded from the definition of solid waste.

Spent fluorescent bulbs are not listed in § 261.4(a). Therefore, they are a solid waste regardless of whether you dispose of it, burn it, accumulate it, store it, treat it, or **recycle it**. Since spent fluorescent bulbs are solid wastes, generators must then determine whether they are a hazardous waste or not. The definition of a hazardous waste is found at 40 CFR § 261.3. Again, simply put, a solid waste is a hazardous waste if it is:

- A) Not excluded under 40 CFR § 261.4(b);

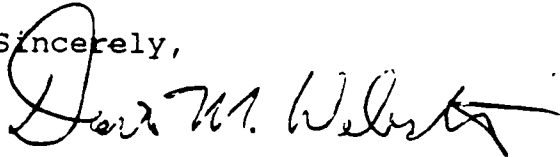


fluorescent bulb can no longer serve its original purpose and is removed from service, it has been generated. Any subsequent use or reuse of that bulb that is not consistent with its intended use as a light source would result in it meeting the definition of a solid waste.

EPA also believes that process residues resulting from the recycling operation are, however, "newly" generated wastes and thus subject to a hazardous waste determination of their own. The actual crushing of the bulbs at the beginning of the recycling process would most likely be considered part of the recycling process and not waste generation.

I hope this letter serves to detail EPA Region I's position on this matter and further provides some background on these issues. If you have any additional questions regarding this matter, please contact John Gauthier of my staff at (617) 573-9629.

Sincerely,



David M. Webster, Chief  
ME & VT Waste Management Branch & RCRA Policy Lead

cc: M. Hoagland w/attach  
J. Hackler w/attach  
G. Gosbee w/attach  
N. Willard  
J. Gauthier  
B. Cuthbertson, EPA-OSW  
S. Dreeszen, MA DEP  
John T. Ham



William F. Weld  
Governor  
Daniel S. Greenbaum  
Commissioner

Commonwealth of Massachusetts  
Executive Office of Environmental Affairs  
**Department of  
Environmental Protection**

no more in right strength  
which are very good to  
the Committee on  
Environment  
7/7/92

April 13, 1992

Gary Gosbee  
State Waste Programs Branch  
USEPA Region I  
25 Canal St.  
Boston, MA

RE: Fluorescent bulb recycling

Dear Mr. Gosbee:

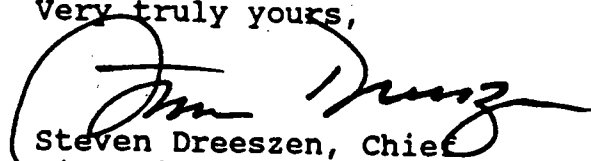
Enclosed is the Department's response to a regulatory interpretation inquiry from Mr. Willilam C. Osborn. Mr. Osborn asks what regulations govern the recycling of fluorescent bulbs containing mercury.

The Department has advised Mr. Osborn that the site of generation of the bulbs is the point at which the bulb is altered, either by crushing or removal of the ends to remove the mercury component.

The Department seeks EPA concurrence on this approach. In the alternative, should you not agree with this interpretation of "site of generation" please advise regarding the preferred approach. Would EPA consider either excluding this type of recycling from RCRA jurisdiction as a hazardous waste, ala freon decision, and allow the recycling as solid waste recycling?

Your prompt consideration will allow the regulated community wishing to engage in this activity to plan with greater certainty.

Very truly yours,

  
Steven Dreeszen, Chief  
Licensing & Engineering Branch

SD/jp



Commonwealth of Massachusetts  
Executive Office of Environmental Affairs

## **Department of Environmental Protection**

William F. Weld  
Governor

Daniel S. Greenbaum  
Commissioner

April 8, 1992

Mr. William C. Osborn  
Lighting Recycling, Inc.  
115 Buckminster Road  
Brookline, MA 02146

Re: Your letter of  
February 28, 1992

Dear Mr. Osborn:

I apologize for the delay in responding to your letter. We are receiving a heavy volume of regulatory interpretation inquiries lately. A proposal such as the one you submitted require a careful regulatory analysis given its innovative aspects.

You propose to recycle fluorescent (and other mercury-containing) lamps, removing recoverable quantities of toxic mercury by one of two means. The first process you describe crushes the bulb, then distills the mercury from the crushed glass. The second process involves cutting the ends off the bulb and removing by vacuum the mercury which is in powder form.

The environmental benefits of either process are obvious: by reclaiming the mercury, previous disposal practices which released mercury into the environment would be eliminated. The Department encourages new approaches to solid and hazardous waste management which will further minimize the release of toxics into the environment.

As noted in your letter and attached facility description, fluorescent lamps would arrive at the facility as in tact and unbroken. The Department would consider Lighting Recycling Inc. a generator of hazardous waste (i.e., waste mercury) at the point the lights are crushed or the ends of the bulbs are removed and the mercury removed.

Pursuant to 310 CMR 30.212(10), any material which is recycled in a completely enclosed system at the site of generation may be considered a Class A regulated recyclable material. Your facility then could qualify for a Class A recycling permit for the distillation process. Any crushed glass could be handled as a non-hazardous solid waste and disposed of according to applicable solid waste regulations.

Please note that in addition to any permit condition required pursuant to 310 CMR 30.200, the Department may impose other conditions deemed appropriate to minimize hazards to public health, safety or the environment. Any such condition could include safeguards to ensure that the facility is totally enclosed preventing the release of fugitive mercury vapors or mercury into the environment.

Any bulbs broken in transit or upon arrival must be handled as hazardous waste before recycling, pursuant to 310 CMR 30.000.

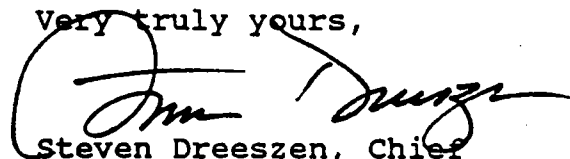
This regulatory interpretation pertains to fluorescent bulbs only. The Department requires further information before deciding the regulatory status of other mercury-bearing wastes such as thermostats, thermometers and button cell batteries. You may inquire separately should you consider mercury recovery from those waste streams in the future.

We are seeking written concurrence from the U.S. Environmental Protection Agency (USEPA) that the Department's interpretation of "site of generation" for fluorescent bulbs is consistent with its policies and guidelines and that the processing of bulbs is considered recycling and not treatment.

Alternatively, we will ask EPA whether it might consider (1) excluding within RCRA light bulb mercury recovery facilities (in the same manner as for freon recycling facilities), or (2) exempting this waste flow from RCRA authority and handling reclamation of mercury from light bulbs as processing of solid wastes.

Should you have further questions, please contact David Biggers of my staff at 617-292-5787.

Very truly yours,



Steven Dreeszen, Chief  
Licensing & Engineering Branch

SD/jp

✓ cc: John Gauthier, EPA  
E. Pawlowski, NERO  
J. Kronopolos, CRO  
P. Mokrzecky, WRO  
G. Monte, SERO  
P. Weinberg, DSH  
A. Green, EOE



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

February 21, 1992

Dear Used Oil Filter Enquirer:

In response to concerns on the proper management of used oil filters, EPA Region I has developed this letter and has enclosed a copy of the EPA Office of Solid Waste's (OSW) regulatory determination regarding used oil filters, dated October 30, 1990. This letter is the current position that EPA is taking toward used oil filters (UOFs). This letter summarizes EPA Region I's position regarding the appropriate management of UOFs and further attempts to answer some common questions and concerns regarding this topic. This discussion supersedes any previous letters that Region I has issued on this topic.

## Summary of UOF Memorandum

The October 1990 memo referenced above, is clear in stating that EPA advocates the "complete" recycling of UOFs, and that a determination of whether UOFs are a hazardous waste (pursuant to 40 C.F.R. § 262.11) is not necessary in instances where UOFs are drained, crushed and recycled for their scrap metal content. Based upon past analytical results and recent analytical data to verify whether used oil exhibits the toxicity characteristic (TC), it appears likely that used oil could contain elevated levels of contaminants such as lead, cadmium, chromium and/or benzene. The keys to avoid making a hazardous waste determination on your UOFs are:

- 1) Insuring that the waste oil recovered from the filters is managed accordingly (pursuant to 40 C.F.R. Part 266, Subpart E or 40 C.F.R. § 261.6(a)(3)(iii)); and
- 2) Insuring that the drained and crushed UOF cartridge is recycled to recover scrap metal pursuant to 40 C.F.R. § 261.6(a)(3)(iv)). The scrap metal cartridges should be sent to a facility that legitimately recycles scrap metal.

## Making a Proper Determination

There has also been a great deal of concern on how an adequate determination on UOFs can be made. This should be a generator's primary concern if he intends to handle UOFs as a non-hazardous waste and dispose of them, or if he determines that it is necessary to manage UOFs as a hazardous waste. In either case, the generator must have knowledge (with appropriate documentation) of the UOF's composition and/or analytical data to determine if a representative sample



If the drained UOFs leave your site in either a crushed or uncrushed state, manifesting as a hazardous waste would not be federally required provided that the receiving facility intends to recycle the reclaimable oil and the remaining filter cartridge. As a generator, you should obtain some manner of record to indicate that the oil filters will be recycled for their scrap metal content.

This record should include the quantity of and frequency that UOFs are shipped and the manner in which they will be handled. Be sure to discuss these issues with any facility that you intend to send UOFs to for recycling. You should also document how that facility intends to recycle the filters and the ultimate fate of the oil, metal cartridge and paper filter element. This information should be maintained at your site for a minimum of three (3) years from the date of shipment.

#### New Developments in Waste Oil and UOF Regulation

Recently, EPA proposed a supplemental rulemaking that could affect all aspects of the management of waste oil and oily debris (such as UOFs). This Federal Register (FR) notice was published on September 23, 1991 (56 FR 48000). In short, this proposal outlined three options on EPA's appropriate characterization of used oil. The proposed rulemaking incorporated information primarily from EPA's 1985 study of used oil and new TCLP data evaluating the toxicity of used motor oils from a number of different sources.

The three alternatives that were proposed focus on the issue of listing used oil as a hazardous waste under 40 C.F.R. Part 261, Subpart D. Summarizing, they are:

- 1) Reinstate the November 29, 1985 (50 FR 49258) proposal to list all used oil as hazardous waste;
- 2) List only, those used piston-engine crankcase oils generated from automobiles and aircraft and marine vehicles, and subject the remaining used oils to the TC; and
- 3) Refrain from listing used oils as a hazardous waste and instead promulgate comprehensive management standards, with possibly listing used oils that are disposed of.

Regardless of which options will be pursued by EPA, you should be aware that these new standards could vastly change the manner in which you are currently managing used oil and oily debris. A supplemental rulemaking on this issue could be forthcoming once EPA has reviewed all comments that have been submitted regarding the proposal.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT 30 1990

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Regulatory Determination on Used Oil Filters

FROM: Sylvia Lowrance, Director  
Office of Solid Waste

TO: Robert L. Duprey, Director (8HWM-RI)  
Hazardous Waste Management Division  
EPA Region VIII

Thank you for your memorandum of August 30, 1990, requesting a regulatory interpretation of the status of used oil filters under the new Toxicity Characteristic (TC). In your memorandum, you inquired about used oil filters that are crushed in vehicle maintenance shops, where a certain portion of the residual used oil in the filter is separated from the filter. The answers to the specific questions you asked are listed below.

1. The Toxicity Characteristic Leaching Procedure (TCLP) is performed on used oil filters by crushing, cutting or grinding the waste (filter plus contents) until the pieces are smaller than 1 centimeter in their narrowest dimension (and thus are capable of passing through a 9.5 mm standard sieve). See Step No. 7.3 of the TCLP. The surface area criterion referred to in Step 7.3 does not apply to used oil filters. (Note: If the generator recycles both the used oil and metal, you do not need to test because recycling of both types of materials is exempted from hazardous waste regulation as discussed below.)

2. and 3. Assuming a used oil filter exhibits the TC, you had inquired whether the act of crushing filters is regulated treatment or exempt recycling. Generally, the types of used oil filter crushers you described would not be regulated if the used oil was being recycled (see 40 CFR 261.6(a)(2)(iii) and (a)(3)(iii)). That is, since the purpose of the crushing is to remove the used oil for recycling, we view the crushing to fall within the used oil recycling exemption. The crushing may be performed on- or off-site, for profit or not. The determining factor is whether the used oil will be recycled. The filter may be shipped off-site for crushing under the used oil recycling exemption, provided the oil is collected for recycling.

4. Generally, automotive oil filters are not considered to be containers because they are designed to filter particulates from oil that circulates through them, not devices for the storage of oil. As a result, a filter could not be an "empty container" under 40 CFR 261.7. However, as described next, a drained or crushed filter is considered scrap metal, and scrap metal is exempt from regulation when recycled.

Under the definition of "solid waste," EPA has determined that "recycled hazardous scrap metal is a solid waste when disposed of or recycled" (see 50 FR 624, January 4, 1985). However, pursuant to section 261.6(a)(3)(iv), hazardous scrap metal is exempted from Subtitle C regulation when recycled. The scrap metal recycling exemption in 40 CFR 261.6(a)(3)(iv) is applicable to used oil filters (scrap metal) that are going to be recycled. However, an undrained or uncrushed oil filter would contain too much oil to qualify for the scrap metal exemption. The January 4, 1985 preamble provided examples of items qualifying for the exemption, such as bars, turnings, rods, sheets, wire (i.e., scrap metal that is going to be recycled to recover their metal content) and examples that do not qualify, including metal-containing waste with a significant liquid component, such as spent batteries.

To increase the probability that the used oil filter (hazardous scrap metal) will qualify for the scrap metal recycling exemption, the generator or recycling facility should drain (gravity) the filter for an amount of time sufficient to ensure that all free-flowing oil is removed. The amount of drain time will vary based on a number of variables, including the size of the filter and temperature (both ambient and that of the filter). Alternately, the generator or recycling facility could crush the oil filter using the most appropriate crushing method that will force excess residual oil from the filter. We will be examining this issue further, but we currently have no information indicating that substantial amounts of oil will remain in the filter after either sufficient draining or adequate crushing. As a best operating practice, the Agency recommends that the generator or recycling facility both drain and crush used oil filters to be certain that the used oil filters would qualify for the hazardous scrap metal recycling exemption.

If the crushed or drained filter will be recycled, it is unnecessary to determine whether it exhibits the TC because the scrap metal exemption is applicable. It would also be unnecessary to manifest these used oil filters if they will be recycled. However, if the filter will be disposed of, the generator must determine if it is hazardous under the TC. If the filter is hazardous waste, the 261.2 and 268 regulations apply to the generator, and Parts 264 and 265 apply to the treatment, storage and disposal facilities. If a waste filter may be disposed in a Subtitle D facility,

Finally, in the sales brochures you sent, there was mention of an open container used to accumulate the used oil after the filter was crushed. (Currently, used oil accumulation by generators is not regulated if the used oil is recycled, but EPA did propose that such containers be kept closed. See 50 FR 49252, November 29, 1985.) Storage or accumulation of characteristically hazardous used oil is regulated if the used oil is to be disposed of; in that case, the containers must be closed except when adding or removing the used oil (per §265.173(a)).

Please contact Daryl Moore at (202) 475-8551 if you have any additional questions on the applicability of the Federal hazardous waste regulations with respect to used oil filters.

cc: Waste Management Division Directors, Regions I - VII and IX - X  
Jeff Denit  
RCRA/Superfund Hotline  
Regional TC Contacts

Mr. Al Nardone  
Massachusetts Department of Environmental Protection  
Division of Hazardous Materials  
One Winter Street, 7<sup>th</sup> Floor  
Boston, MA. 02108

Dear Mr. Nardone:

This letter responds to the questions you presented in a recent telephone conversation with Jim Gaffey of my staff concerning the permit renewal of a Massachusetts Laidlaw facility. Specifically, you requested EPA - New England's (EPA) position on dealing with permit conditions for base-program areas not currently a part of the state's authorized RCRA program. Examples included Air Emission Standards for Process Vents, Equipment Leaks and Tanks, Surface Impoundments and Containers (Subparts AA, BB, and the new CC), and the Toxicity Characteristic Rule (TCLP). The theme of your inquiry center around an important policy issue which warrants clarification by EPA. Since this issue is relevant to all authorized State programs, a copy of this response is being forwarded to the five other New England state program offices.

EPA encourages the incorporation of statutory standards into new permits and permit renewals in those instances where the state has adopted applicable regulations into law. For situations where the state has not yet adopted regulations, EPA recommends drafting permits without addressing such provisions in the permit. EPA, however, acknowledges that each facility's hazardous waste management operations must be attended to on a case-by-case basis. Situations may occur which warrant specifying permits conditions in areas where the state is not authorized and no state law exists. In those situations, we recommend using your omnibus provision to ensure protection of human health and the environment.

EPA's position relative to permit conditions for base-program areas not currently a part of the state's authorized RCRA program is based on the following points:

1. As a result of HSWA, self-implementing facility standards imposed by statute apply to all permitted facilities. (Note; the "permit as a shield" for Subparts AA and BB expires on June 5, 1995; the effective date for Subpart CC.)
2. Self-implementing provisions incorporated into a permit will act as a shield for those self-implementing requirements.
3. Permit writers will be called upon to negotiate permit conditions in new areas which may become resource intensive and focus attention away from other key permitting issues.

EPA also recommends describing the position taken in handling this permitting issue in the administrative record of a draft permit for the benefit of the general public and the permittee. You may also add a general facility standards-type permit condition mandating the permittee to comply with all applicable self-implementing provisions imposed by RCRA.

Thank you for bringing this matter to our attention. If you have any comments on this or other permitting matters, please contact James Gaffey of my staff at (617) 223-5542.

Sincerely,

Gary Gosbee, Chief  
Permits and State Programs Section  
Waste Management Division

cc:

Dave Sattler, CT DEP  
Stacy Ladner, ME DEP  
Pam Sprague, NH DES  
Beverly Migliori, RI DEM  
Steve Simoes, VT DEC  
EPA RCRA State Coordinators  
Fred Friedman, LAI

December 21, 1993

Chester W. Matthews  
Director, Safety, Health  
and Environmental Protection  
Bath Iron Works  
700 Washington Street  
Bath, ME 04530

Dear Mr. Matthews:

In response to your November 16, 1993 letter concerning my telephone conversation with Bath Iron Works personnel, I'd like to provide clarification on the issues you raised and on the BIW paint use/reuse issue in general.

Chapter 40 CFR, Section 261.2 provides the definition of solid waste and states,

"A solid waste is any discarded material that is not excluded by Section 261.4(a) or that is not excluded by variance..."

However, Section 261.2(e) explains that materials that are not solid waste when recycled include those that can be shown to be recycled by being used or reused as "effective substitutes for commercial products." Thus you need only document that there is a known market or disposition for the material (see Section 261.2(f)) to avoid its classification as solid waste and therefore a subject of RCRA Subtitle C regulation. This applies to materials that are not accumulated speculatively for recycling at some point in the future (see Section 261.1(c)).

In your letter you indicate correctly that the owner of a material must determine whether it is a solid waste as defined in 40 CFR, Section 261.2. You should base your determination on documentation from the paint's manufacturer indicating its effective life. You should also refer to the paint as a material, versus a "hazardous" material which is unnecessarily cautious.

Federal regulations offer no definition of the terms "intended use" or "original intended use". I offered my interpretation of these terms based on their intuitive meaning when I spoke with Mr. Arndt and Mr. Lewis. I understand through speaking with Denise Lord of the Maine Waste Management Agency that the state

initially offered a definition of use and reuse that are more strict than federal regulations. Since it is within the state's authority to do this, you should defer to the state's definition of these terms. If the State of Maine determines that the Military Specification date is the date at which the paint becomes a hazardous waste, then BIW will need to petition the state for a variance from its regulations.

I apologize for the delay in getting back to you on this issue; I got supporting information from other staff here which took some time. If you require additional clarification or assistance, please contact me at (617) 223-5529.

Sincerely,

Sally B. Mansur  
Waste Management Division  
Pollution Prevention Coordinator

cc: Matthew Hoagland, Chief, ME, NH & VT Waste Regulation  
Section  
Ken Rota, RCRA Support Section  
Denise Lord, Maine Waste Management Agency



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

March 20, 1992

Mr. Stergios Spanos  
New Hampshire Department of Environmental Services  
Hazardous Waste Compliance Section  
6 Hazen Drive  
Concord, NH 03301-6509

Dear Stergios:

During a telephone conversation between your office and EPA on November 6, 1991, you requested Region I's interpretation of recycling requirements as they relate to specific recyclable wastes allegedly generated by Bronze Craft Corporation located in Nashua, New Hampshire. These specific recyclable wastes were: metal chips and turnings; metal buffing and grinding dusts that exhibit the hazardous characteristic of lead; zinc oxide by-products; foundry sand exhibiting the hazardous characteristic of lead, and; wastewater treatment sludge exhibiting the hazardous characteristic of lead.

The regulated status of each of these recyclable materials has been reviewed and is explained below. The applicable federal regulations are included as part of the explanation, as are the corresponding State of New Hampshire Hazardous Waste Rules (Env-Wm).<sup>1</sup>

## Metal Chips and Turnings

These recyclable materials are classified as a "scrap metal" as defined by 40 C.F.R. § 261.1(c)(6) (Env-Wm 110.01(b)(93)). Scrap metal that is "reclaimed" is not subject to hazardous waste regulation under 40 C.F.R. Parts 262 through Parts 266 and Parts

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<sup>1</sup> The Region is referring to the State's hazardous waste regulation citations, solely to provide you with the proposed state analogues to the applicable federal regulations. The Region has not yet reviewed the New Hampshire Hazardous Waste Regulations for equivalency with the federal regulations. EPA's final review of the State of New Hampshire's RCRA Reauthorization Application, dated May 31, 1991, for equivalency to the federal regulations is pending. Should New Hampshire receive authority from EPA to administer parts of its hazardous waste program in lieu of the relevant federal regulations, New Hampshire would then determine the applicability of its regulations to RCRA facilities located within its boundaries.



268, 270 or 124, nor is such recyclable material subject to the notification requirements of Section 3010 of RCRA.<sup>2</sup>

#### Buffing and Grinding Dusts

This material is classified as a "sludge" as set out at 40 C.F.R. § 260.10 as referenced by 40 C.F.R. § 261.1(c)(2) (Env-Wm 110.01(a) as referenced by Env-Wm 110.01(b)(95)). The metal and grinding sludges exhibit the characteristic of lead; however, these sludges will be reclaimed for their high copper content. Title 40 C.F.R. § 261.2(c)(3), Table 1, Column 3 (attached) (Env-Wm 803.04(b)(1)) exempts sludges from the regulatory definition of solid waste if they exhibit a characteristic of hazardous waste but are reclaimed.<sup>3</sup>

Buffing and grinding sludges that are reclaimed and are not classified as solid wastes are not subject to regulation under 40 C.F.R. Parts 262 through Parts 266, Parts 268, 270 and 124 (Env-Wm Chapters 500-800, Chapter 300). These sludges are also not subject to the notification requirements of Section 3010 of RCRA.

#### Zinc Oxide

The zinc oxide is a "by-product" as defined at 40 C.F.R. § 261.1(c)(3) (Env-Wm 110.01(b)(8)). The zinc oxide will be reused as an ingredient to produce zinc chloride, and can be reused without prior reclamation. Recyclable materials that are used or reused as ingredients in an industrial process without prior reclamation are not solid wastes according to 40 C.F.R. § 261.2(e)(1)(i) (Env-Wm 803.04(a)(1)). Therefore, any zinc oxide handled in this manner is not subject to regulation under 40 C.F.R. Parts 262 through Parts 266, 268, 270 and 124 (Env-Wm Chapters 500-800 and 300).

#### Excess Foundry Sand

The excess foundry sand is a 90% silica compound that also exhibits the hazardous characteristic of lead. Although the material is a spent material generated by the facility, it is similar to virgin silica used as a fluxing agent to remove metal contaminants (which includes lead) in the copper smelting process. Because the new use of this spent foundry sand is legitimate and has been demonstrated to be an effective commercial substitute, the material is not a solid waste according to 40 C.F.R. § 261.2(e)(1)(ii) (Env-Wm 803.04(a)(2)). Therefore, this material is not considered to be a hazardous waste.

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<sup>2</sup> See Title 40 C.F.R. § 261.6(a)(3)(iv) (Env-Wm 802.02(a)(3)).

<sup>3</sup> A waste cannot be classified as a hazardous waste unless it is also a solid waste.

## Wastewater Treatment Sludges

These recyclable materials are classified as sludges as defined at 40 C.F.R. § 260.10, as referenced by 40 C.F.R. § 261.1(c)(2), (Env-Wm 110.01(a) as referenced by Env-Wm 110.01(b)(95)). The wastewater treatment sludge exhibits the characteristic of lead but can be reclaimed for the copper content. Title 40 C.F.R. § 261.2(c)(3), Table 1, Column 3 (Env-Wm 803.04(b)(1)) exempts sludges from the regulatory definition of solid waste if they exhibit a characteristic of hazardous waste, and are reclaimed. A waste cannot be classified as a hazardous waste unless it is also a solid waste. Sludges reclaimed in this manner are not subject to regulation under 40 C.F.R. Parts 262 through 266, 268, 270 or 124 (Env-Wm Chapters 500-800 or 300. The sludges are also not subject to the notification requirements of Section 3010 of RCRA.

## Conclusion

The recyclable waste materials identified above would not be subject to the hazardous waste exporting requirements since they are not classified as solid wastes and, therefore, cannot be classified as hazardous wastes. Please be advised that our assessment of the non-hazardous classification of these wastes is based solely upon the recycling processes to be conducted with each waste, as set out in a letter from Bronze Craft Corporation to your agency, dated August 23, 1991 (copy attached). Any change to the proposed methods of recycling as set out in this letter may result in a change in the regulatory status for that specific recyclable material.

While the federal regulations allow an exemption for the recyclable materials described above, this exemption does not apply to any recyclable material or portions of recyclable materials that cannot be reclaimed. I have enclosed a copy of EPA's Office of Solid Waste and Emergency Response's (OSWER) Directive Number 9441.25(85) as a reference. This directive explains EPA's interpretation of the regulatory definition of solid waste as applied to recyclable materials used as ingredients (as is the case in Bronze Craft Corporation).

Please call Kenneth Rota of the RCRA Support Section at (617) 573-5759 if you have any questions concerning this matter.

Sincerely,



John Smaldone, Acting Chief  
ME, NH & VT Waste Regulation Section

cc: Andy Miniuks, NH State Coordinator  
John Gauthier, ME/NH/VT Enforcement Coordinator  
Donna Kiefer, ORC

bcc: Ken Rota



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

February 18, 1992

Mr. Richard Fosco  
Franklin Environmental Services, Inc.  
185 Industrial Road  
P.O. Box 617  
Wrentham, MA 02093

Dear Mr. Fosco:

This letter is in response to your January 23, 1992 telephone request for a regulatory interpretation of the applicability of the Land Disposal Restrictions (LDR) to lead contaminated debris. Because EPA does not have all of the specifics concerning your waste, no definitive answer can be given for this scenario. What follows is an explanation of Region I's interpretation of the regulatory status of wastes similar to those you have described.

The scenario you have outlined involves a mixture of inorganic solid debris, as defined in 40 C.F.R. § 268.3(g), and organic debris contaminated with lead dust, EPA hazardous waste number D008. If, in fact, the inorganic debris you have identified can be considered inorganic solid debris contaminated solely with characteristic metal wastes, such debris would be eligible for a LDR National Capacity Extension (NCE), pursuant to 40 C.F.R. § 268.35(c). As outlined in a letter from EPA's Sylvia Lowrance to Mr. G.A. Vogt, dated October 14, 1990,--and further discussed in the Technical Amendment Notice to the LDR Third Scheduled Wastes Final Rule, 55 Federal Register 3872, dated January 31, 1991, organic solid debris contaminated with EPA hazardous waste numbers D004-D011 may also be included in the extension for inorganic debris where such organics cannot be "...manually separable or separable by simple mechanical means" from the inorganic portion. Such determination would be made at the point of generation of such debris. Region I believes that the waste mixture that you have explained involves organic debris (identified as consisting of PVC pipe, wood, wallboard, and protective clothing) which should be easily separable from the inorganic debris (identified as consisting of machinery, pipes, ducts, and valves). Therefore, the Region does not believe that the organic debris, such as you have described, should be eligible for the extension afforded to inorganic solid debris.

The organic debris you have explained may, however, qualify as a debris contaminated with a "Third Third" waste whose treatment standard was based on the performance of incineration. Such wastes have been granted an NCE pursuant to 40 C.F.R. § 268.35(e) which expires on May 8, 1992. To accomplish this, your waste must satisfy two conditions: 1) it must fit the definition of debris, and 2) the treatment standard must be based on the performance of incineration.




(wood only), scarification and grinding (wood only), and vibratory finishing (wood, rubber, and plastic only). Immobilization technologies have been determined to be inappropriate for these types of debris (however, treatment residues may require immobilization prior to disposal). Again, the identification of thermal destruction (i.e., incineration) as one of the proposed BDAT technologies for contaminated debris supports the inclusion of incineration as an acceptable technology for these wastes at the present time. EPA supports the use of extraction technologies, where the hazardous waste is removed from the debris, thus reducing the quantity of untreated waste, wherever feasible. However, where the use of such technologies are inappropriate or inadequate, incineration may be a viable alternative.

I trust that this information will assist you in your determination of the regulatory status of your waste. Bear in mind that the interpretations herein are those of EPA Region I. If you intend to ship your waste to a facility located in another EPA Region, that EPA regional office, as well as the receiving state (if authorized for this aspect of the RCRA program), should be contacted for their interpretation of these regulations.

If you have any further questions on any of the information above, or the Land Disposal Restrictions program, feel free to contact me at (617) 573-5778.

Sincerely,



Robert G. Cianciarulo, Chemical Engineer  
Land Disposal Restrictions Coordinator  
RCRA Enforcement Unit  
RCRA Support Section



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

February 5, 1992

David A. Nash  
Director  
Waste Engineering and Enforcement Division  
Connecticut Department of Environmental Protection  
165 Capitol Avenue  
Hartford, CT 06106

Re: Consent Decree Regarding Olin Corporation, Cheshire, Ct

Dear Mr. Nash:

The Region has reviewed the consent order between the Connecticut Department of Environmental Protection and Olin Corporation (Olin). The consent order specifies the terms Olin will have to comply with in regards to what Olin calls the Chemical Transfer Room. The consent order states that Olin would regulate the chemical storage area as a satellite accumulation area and not have to regulate the Chemical Transfer Room as a less than 90 day storage area.

EPA's position is that the Chemical Transfer Room is a less than 90 day storage area and should be regulated as such. In order for the Chemical Transfer Room to be considered a satellite accumulation area, the requirements of 40 CFR § 262.34(c)(1) must be met. 40 CFR § 262.34(c)(1) states:

A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in § 261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided he:

(i) Complies with §§ 265.171, 265.172, and 265.173(a) of this chapter; and

(ii) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

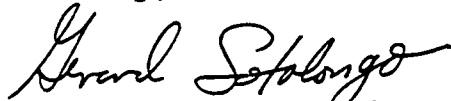
The December 20, 1984 Federal Register, Page 49569 states that "Satellite areas are those places where wastes are generated in the industrial process or the laboratory and where these wastes initially accumulate prior to removal to a central area." Olin's



Chemical Transfer Room is not at or near any point of generation where wastes initially accumulate nor is the room under control of the operator of the process generating the waste. Therefore, the Chemical Transfer Room must be regulated as an interim status less than 90 day storage area.

The Region appreciates the opportunity to review regulatory matters in order to ensure consistency in the program. If you have any other questions, please do not hesitate to call me at (617) 573-9680.

Sincerely,



Gerard Sotolongo, Chief  
Connecticut Waste Regulation Section

Enclosure

cc: Michael Hill, EPA  
Mary Hogan, CT DEP

12-23-93

27

Mr. Steven DeGabriel  
Massachusetts Department of  
Environmental Protection  
Division of Hazardous Materials  
One Winter Street, 7th Floor  
Boston, MA 02108

Dear Mr. DeGabriel:

This letter responds to two questions presented in your October 15, 1993 letter. Your first question deals with the relationship between the State's listing of Class A recyclable materials and those materials included in that list that do not meet the definition of solid waste as set out in the Resource Conservation and Recovery Act (RCRA). You note that although the Class A Recyclables set out at 310 CMR 30.212(1-12) are composed of some State only, broader in scope categories, the regulation also contains categories that list Federal analogues.<sup>1</sup> Therefore, you ask us to identify those categories that EPA believes have Federally regulated analogues, and to identify which of those categories are not Federally regulated. Finally, you ask EPA to provide an opinion on the applicability of 310 CMR 30.351(2)(B)(3) to all Class A materials listed at 310 CMR 30.212.

The relationship between State and Federal requirements for recycled materials is relevant in determining whether a generator is a small or large quantity generator. Under federal regulations, one must determine whether a material can be defined as a solid waste by definition. Only if one determines that the material is a solid waste can one go on to determine if it is a hazardous waste. Under RCRA, any waste which cannot be defined as, or is exempt from the definition of solid waste, cannot be a hazardous waste. Therefore, such a waste would not be counted towards determining the rate of generation.

The following table which lists each Class A recyclable material should clarify the relationship between analogous State and Federal regulations. The materials listed below are those that are considered to be recyclable by the State and would not be considered in determining a company's hazardous waste generator status. Following the description of each material are the applicable State and Federal regulations.

*LB*

CONCURRENCES	
TITLE	40 CFR §§261.1 AND 261.2.
SUBJECT	<i>Can</i>
DATE	12/23/93

EPA Form 1220-1 (12-92)

OFFICIAL FILE COPY

The materials followed by a Federal citation are exempt from the definition of solid waste, and therefore, would not be considered hazardous wastes. In determining how much hazardous waste is generated in a month at a particular company, federal standards would exempt all of the items below followed by Federal citations, when being reclaimed:

#### Class A Regulated Recyclable Materials

- 1) Materials that are neither used in manner constituting disposal, nor burned for energy recovery, nor accumulated speculatively and are either: used or reused as ingredients to make a product, provided that the materials are not being reclaimed; used or reused as substitutes for commercial chemical products; or returned as substitutes for feedstock in the original production process without being reclaimed. [310 CMR 30.212(1)(a)(c) / 40 CFR §261.2(e)(i)-(iii)]
- 2) Industrial ethyl alcohol. [31 CMR 30.212(2) / 40 CFR §261.6(a)(3)(i)]
- 3) Scrap metal which would be a hazardous waste if disposed of. [310 CMR 30.212(3) / 40 CFR §261.6(a)(3)(iv)]
- 4) Used batteries returned for regeneration to the manufacturer or other regeneration facility [310 CMR 30.212(4) / 40 CFR §261.6(a)(2)(v)]
- 5) A sludge having the characteristics of a hazardous waste when being reclaimed. [310 CMR 30.212(5) / 40 CFR §261.6(c)(3)]
- 6) A by-product having the characteristics of a hazardous waste when being reclaimed. [310 CMR 30.212(6) / 40 CFR §261.6(c)(3)]
- 7) A commercial chemical product listed in 310 CMR 30.133 or 30.136 which has never been used and which is being reclaimed. [310 CMR 30.212(7) / 40 CFR §261.6(c)(3)]
- 8) Waste oil, including, but not limited to waste oil that has the characteristics of a hazardous waste and is not hazardous waste fuel, if recycled in some other manner than being burned for energy recovery. [310 CMR 30.212(8) / 40 CFR §261.6(a)(3)(iii)]
- 9) Specification used oil fuel burned for energy recovery and otherwise handled in compliance with 310 CMR 30.250. [310 CMR 30.212(9) / no federal regulatory analogue]
- 10) A material recycled in a completely enclosed recycling system at the site of generation. [310 CMR 30.212(10) / 40 CFR §261.4(a)(8)]

If you have any further questions on these regulatory interpretations, please call Lisa Papetti of my staff at 573-5745.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary Gosbee".

Gary Gosbee, Chief  
MA & RI Waste Regulations Section

cc: Lisa Papetti, EPA  
Jim Miller, EPA  
Bill Sirull, MA DEP - Boston



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

December 22, 1993

Mr. Stephen Finch  
Laboratory Director  
Dexsil Corporation  
One Hamden Park Drive  
Hamden, CT 06517

Dear Mr. Finch:

This letter is in response to your October 21, 1993 inquiry about the permitting requirements under the Resource Conservation and Recovery Act (RCRA) as they apply to the line of portable test kits manufactured by your company.

Based on the facts presented in your letter and as clarified in our telephone conversations, the use of the precipitation agent to render the aqueous based solution non-hazardous is treatment of a hazardous waste. At the completion of a test, prior to adding this agent, the solution fails the Toxicity Characteristic Leaching Procedure (TCLP) test due to the presence of heavy metals. TCLP failure is due to the titrating agent mercuric nitrate which is added to produce a visual indication for the presents of chlorides. The precipitation agent (Aquafloc 2404) is added to render insoluble the heavy metals resulting from this titration process, and is not intended to treat any other constituents (e.g., chlorinated solvents, benzene) that may be present in the solution.

RCRA does not require the issuance of a permit for on-site treatment of hazardous waste provided the treatment takes place in an accumulation container or tank in conformance with the requirements of 40 CFR Part 262.34 and Subparts I and J of 40 CFR Part 265 (standards for containers and tank systems). It should be noted that if the treatment takes place in a device that does not meet the definition of a container or tank the treatment would be subject to RCRA permitting.

In addition, 40 CFR Part 268.9 requires generators who treat characteristic wastes in accumulation containers or tanks to meet applicable land disposal restrictions (LDR) must prepare a waste analysis plan. This plan must formally documents the waste analysis procedures necessary to demonstrate compliance with the LDR regulations. Please note that treatment of hazardous waste must not violate the dilution prohibition standards of 40 CFR Part 268.3. The use of a precipitation agent does not appear to violate this prohibition.



The United States Environmental Protection Agency, Region 1 interpretation in this letter reflects the Federal regulations governing hazardous waste. States with authorized programs may impose more stringent requirements. If you have any questions, please contact James Gaffey of my staff at (617) 223-5542.

Sincerely,

A handwritten signature in dark ink, appearing to read 'J. Podgurski', with a long horizontal flourish extending to the right.

John Podgurski, Chief  
Connecticut Waste Regulation Section  
Waste Management Division

# DEXSIL®

October 21, 1993

Mr. James Gaffey  
RCRA Permitting  
USEPA  
Mailcode HEE-CAN6  
JFK Federal Building  
Boston, MA 02203

Dear Mr. Gaffey;


I am writing to you following our telephone discussion of yesterday concerning disposal of used test kits.

We manufacture a line of portable test kits to analyze soil, oil, and water samples for the presence of chlorinated solvents, PCBs, and other environmental contaminants. These test kits use small amounts of a variety of chemicals, including heavy metals, to perform the testing procedure. At the completion of a test, a kit contains trace amounts of mercury, ranging from 0.5 to 2.5 milligrams per kit. The kits use a precipitation agent to render the heavy metals insoluble which allows the used kits to easily pass the TCLP test for disposal.

Several of our customers are concerned that by performing this test procedure they are actually treating a hazardous waste and therefore need an EPA permit to do so. It is our understanding from reading the regulations and from the ACS "Waste Management Manual" that this is not necessary for this type of analytical test. We have tried to explain this to our customers, but they have requested that we provide them with a written opinion direct from the EPA. Would you please provide us with a letter stating your interpretation of the permitting requirement as it concerns these test kits? We will then forward copies of your letter to the concerned parties. Please let me know if you require any further information.

I appreciate your attention to this matter.

Sincerely,



Stephen Finch  
Laboratory Director

December 21, 1993

Chester W. Matthews  
Director, Safety, Health  
and Environmental Protection  
Bath Iron Works  
700 Washington Street  
Bath, ME 04530

Dear Mr. Matthews:

In response to your November 16, 1993 letter concerning my telephone conversation with Bath Iron Works personnel, I'd like to provide clarification on the issues you raised and on the BIW paint use/reuse issue in general.

Chapter 40 CFR, Section 261.2 provides the definition of solid waste and states,

"A solid waste is any discarded material that is not excluded by Section 261.4(a) or that is not excluded by variance..."

However, Section 261.2(e) explains that materials that are not solid waste when recycled include those that can be shown to be recycled by being used or reused as "effective substitutes for commercial products." Thus you need only document that there is a known market or disposition for the material (see Section 261.2(f)) to avoid its classification as solid waste and therefore a subject of RCRA Subtitle C regulation. This applies to materials that are not accumulated speculatively for recycling at some point in the future (see Section 261.1(c)).

In your letter you indicate correctly that the owner of a material must determine whether it is a solid waste as defined in 40 CFR, Section 261.2. You should base your determination on documentation from the paint's manufacturer indicating its effective life. You should also refer to the paint as a material, versus a "hazardous" material which is unnecessarily cautious.)

Federal regulations offer no definition of the terms "intended use" or "original intended use". I offered my interpretation of these terms based on their intuitive meaning when I spoke with Mr. Arndt and Mr. Lewis. I understand through speaking with Denise Lord of the Maine Waste Management Agency that the state

initially offered a definition of use and reuse that are more strict than federal regulations. Since it is within the state's authority to do this, you should defer to the state's definition of these terms. If the State of Maine determines that the Military Specification date is the date at which the paint becomes a hazardous waste, then BIW will need to petition the state for a variance from its regulations.

I apologize for the delay in getting back to you on this issue; I got supporting information from other staff here which took some time. If you require additional clarification or assistance, please contact me at (617) 223-5529.

Sincerely,

Sally B. Mansur  
Waste Management Division  
Pollution Prevention Coordinator

cc: Matthew Hoagland, Chief, ME, NH & VT Waste Regulation  
Section  
Ken Rota, RCRA Support Section  
Denise Lord, Maine Waste Management Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

December 16, 1993

Thomas R. Trafton, President  
Recovery Express, Incorporated  
197 Portland Street  
Boston, MA 02114

Dear Mr. Trafton:

This letter is in response to your November 10, 1993 letter, requesting EPA Region I's interpretation of the applicability of the Resource Conservation and Recovery Act (RCRA) regulations to the Recovery Express' Shred Pax AZ40 machine.

The RCRA regulations apply to those who generate, treat, store, dispose of, or transport hazardous waste. In grinding lead contaminated debris, the Shred Pax machine appears to be designed to alter the physical characteristics of the lead contaminated materials only to facilitate the ultimate processing of the waste, not to make the waste more amenable to the treatment process. The waste is not being changed to render it less hazardous, to make it more amenable to recovery, or reduced in volume and, in fact, none of the conditions which must be met for a process to be considered treatment are met, and this process would not be subject to treatment requirements. As described in your literature, the lead contaminated material will still be considered hazardous waste after the Shred Pax operation is complete.

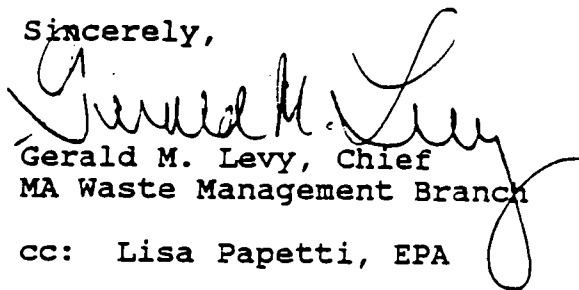
In addition, it appears that because the unit is mobile, the generator associated with the site at which the unit is used will be responsible for hazardous waste management practices involved with the machine while on its premises. Also, the generator would be subject to training requirements for any employees handling hazardous waste at their site. Recovery Express and the generator may also be held to additional safety requirements under Occupational Safety and Health Administration (OSHA) regulations. The fact that the process is conducted entirely at the generator's facility and is left at the facility upon completion of processing, relieves Recovery Express of any transportation or generator notification requirements.

Finally, this operation may be subject to certain EPA and/or MA DEP air quality regulations. Please consult both Agencies to determine the applicability of these regulations to your process.



If you have additional questions on RCRA requirements, please  
contact Lisa Papetti of my staff at 573-5745.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gerald M. Levy". The signature is written in dark ink and is positioned above the printed name and title.

Gerald M. Levy, Chief  
MA Waste Management Branch

cc: Lisa Papetti, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

October 8, 1993

Honorable Wayne D. King  
New Hampshire State Senator  
State House  
Concord, New Hampshire 03301-4951

Dear Senator King:

Administrator Carol Browner has asked me to respond to your letter of August 4, 1993. Your letter asked why batteries offered by New England Power to Ms. Melanie Hamilton and Mr. Walter Myers would have to be returned to New England Power for disposal as specified by EPA regulations. You did not provide the specific authority that New England Power referenced when dealing with Mr. Myers. I assume that the Resource Conservation and Recovery Act (RCRA) was the authority referenced and my response will be from this perspective.

Based on the facts presented, we believe that New England Power may have acted prematurely. The batteries had not been discarded, and hence had not yet become a solid waste under 40 C.F.R. § 261.2.

Had the batteries been discarded, they would have become a solid waste and very likely also a hazardous waste. In general a solid waste is any material that is discarded by being disposed of, burned, treated or accumulated before or in lieu of these activities. The definition of a solid waste is given in 40 C.F.R. § 261.2(a)(1), "A solid waste is any discarded material that is not excluded by § 261.4(a) or that is not excluded by variance granted under § 260.30 and 260.31". A discarded material is any material which is abandoned as explained in paragraph (b) of § 261.2, recycled as explained in paragraph (c) of § 261.2 or considered inherently waste-like as explained in paragraph (d) of § 261.2.

A solid waste is a hazardous waste if it exhibits a characteristic of a hazardous waste identified in subpart C of part 261 or it is listed in subpart D of part 261. RCRA establishes a comprehensive management program to regulate hazardous waste from generation through proper disposal or destruction. The regulations first identify those wastes that are hazardous and then establishes various administrative requirements for the three categories of hazardous waste handlers, which are generators, transporters, and owners or operators of treatment, storage and disposal facilities.

In accordance with § 261.2(e)(1)(ii) materials that are not solid waste when recycled are those materials that can be shown to be



"used or reused as an effective substitute for commercial products." If the recycling process involved reclamation, such as the recovering of lead from spent lead batteries, the material would be deemed a solid waste. In the case of spent lead batteries they would be subject to part 266 subpart G of the regulations.

Under the RCRA subtitle C regulations, batteries reused for the purpose of substituting for a commercial product would not be deemed as a solid waste and therefore not subject to the applicable hazardous waste management criteria.

You should be aware that the above conclusion pertains only to federal EPA requirements under RCRA. Many aspects of the RCRA program are delegated to and reflected in the New Hampshire regulations. EPA's conclusions and guidance on interpretive issues do not necessarily supersede those of New Hampshire.

If you have any questions on this matter, please contact Mel Cheeks of my staff at (617) 223-5590.

Sincerely,



for Paul G. Keough  
Acting Regional Administrator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

SEP 2 1993

Gary L. Williams, Manager  
Laidlaw Environmental Services, Inc.  
Transportation Programs  
P.O. Box 210799  
Columbia, SC 29221

Re: Hazardous Waste Discharges from Third Party Transporters

Dear Mr. Williams:

This is in response to your letter dated May 28, 1993, requesting EPA's position on the applicability of certain portions of the regulations promulgated pursuant to the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 et seq. to activities undertaken by your corporation, Laidlaw Environmental Services, Inc. (Laidlaw).

Your letter outlined a hypothetical situation involving the discharge of hazardous wastes during transport by a third party transporter. You stated that the hazardous waste discharge was remediated by the third party transporter and placed into drums. You further stated that the discharged hazardous waste stored in these drums no longer met the hazardous waste description listed on the original hazardous waste manifest. You specifically requested Region I to determine who the generator of this hazardous waste discharge would be for this hypothetical situation. You also stated that 40 C.F.R. Part 263, Subparts B and C do not clearly address who should be identified as the generator in the event of a hazardous waste discharge occurring during transportation.

In order to respond to this issue, we must point out that 40 C.F.R. Part 262 must be used to determine the generator of the discharged hazardous waste. 40 C.F.R. Part 263 Subparts B and C are not meant to address generator liability issues. The intent of these Subparts is to provide temporary relief from the regulations to a transporter for any treatment or containment activities undertaken during an immediate response to a discharge of hazardous waste; an imminent and substantial threat of a discharge of hazardous waste; and, a discharge of a material which, when discharged, becomes a hazardous waste during the normal course of transportation.<sup>1</sup> 40 C.F.R. Part 263 also

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<sup>1</sup> However, please note that 40 C.F.R. § 270.1(c)(3)(ii) states that "any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part for those activities."



If you have any further questions regarding this matter, please contact Kenneth Rota of the RCRA Enforcement Unit at (617) 573-5759.

Sincerely,

A handwritten signature in cursive script, reading "Bruce Marshall". The signature is fluid and written in dark ink.

Bruce Marshall, Chief  
RCRA Support Section

cc: Kenneth Rota, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

CERTIFIED MAIL: RETURN RECEIPT REQUESTED

July 21, 1993

E. Michael Thomas  
Goodwin, Proctor and Hoar  
Exchange Place  
Boston, MA 02109-2881

Dear Mr. Thomas:

This is in response to your letter of November 17, 1992, addressed to Region I's Office of Regional Counsel. Your letter requested clarification of several issues relating to the treatment standards for those F-listed wastes which also exhibit a hazardous characteristic. The Region's responses are presented in the same order as set out in your letter.

1. According to 40 C.F.R. § 268.9(a) and (b), if a hazardous waste constituent has been determined to be from a listed source and also possesses a hazardous characteristic, then only the listed waste code need be entered on the LDR notification.<sup>1</sup> Also, the more specific treatment standard will apply.

The treatment standard for acetone as a constituent in a characteristic high TOC ignitable liquid is technology based. However, only the numerical treatment standard for acetone must be met as listed in 40 C.F.R. § 268.43, Table CCW.<sup>2</sup>

In contrast to the above scenario, when a listed waste contains a constituent which is characteristic, but not included as a constituent of the listed waste, then the waste code and the associated treatment standard for that characteristic waste must be entered on the notification, in addition to the listed waste code on the notification.<sup>3</sup>

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<sup>1</sup> The Agency has determined that the treatment standards in effect for listed wastes are more specific than treatment standards for characteristic wastes. See 55 Fed. Reg. 22659 (June 1, 1990).

<sup>2</sup> However, one would not necessarily need to use the treatment technologies required for D001 ignitable liquids to achieve adequate treatment for acetone. Also, please note that the treatment standards for most F001-F005 constituents have been revised. See 57 Fed. Reg. 37194, 37204 (August 18, 1992).

<sup>3</sup> e.g., lead (D008) contained in waste acetone (F003).



2. Yes, for the same reason cited above. If spent methyl ethyl ketone has been determined to be F005, then it does not need a D001 waste code. If the constituent methyl ethyl ketone has been determined to be a spent solvent, then the F005 designation is correct and the specific treatment standard listed in 40 C.F.R § 268.43, Table CCW, must be met before land disposal of such waste.
3. The same principle applies to notification requirements and biennial reporting. Only the listed waste code should be included in these documents since it is more specific. Again, if there is a constituent in the listed waste which is characteristic but is not covered under the listing, then the characteristic waste code must be reported. With regard to the manifest, federal regulations require that only the U.S. Department of Transportation (DOT) description be set out on the manifest. If the state requires the inclusion of the waste code on the manifest, then the appropriate code(s) must be entered.

I hope these comments prove useful. If you have further questions or comments please contact Elaine Stanley of my staff at 223-5515.

Sincerely,



Bruce Marshall, Chief  
RCRA Support Section

cc: Joshua Secunda  
Elaine Stanley

Charlie -

Here's the letter  
from Josh -

Please coordinate  
w/ Brian on this

Thanks

Jim

**GOODWIN, PROCTER & HOAR**  
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS  
COUNSELLORS AT LAW  
EXCHANGE PLACE  
BOSTON, MASSACHUSETTS 02109-2881

TELEPHONE (617) 570-1000  
TELECOPIER (617) 523-1231  
TELEX 94-0640  
CABLE - GOODPROCT, BOSTON

P.2  
JGK

November 17, 1992

Deborah Brown, Esq.  
Chief, RCRA/EPCRA Section  
U.S. Environmental Protection Agency, Region 1  
Office of Regional Counsel  
JFK Federal Building  
Boston, MA 02203

Dear Ms. Brown:

I am writing to inquire about the procedures for filing Land Disposal Restriction (LDR) notifications and hazardous waste manifests concerning wastes which are F-listed wastes which also exhibit a hazardous characteristic. According to 40 C.F.R. § 268.9(b),

[w]here a prohibited waste is both listed under 40 C.F.R. part 261, subpart D, and exhibits a characteristic under 40 C.F.R. part 261, subpart C, the treatment standard for the waste code listed in 40 C.F.R. part 261, subpart D, will operate in lieu of the standard for the waste code under 40 C.F.R. part 261, subpart C, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.

This provision is discussed in general terms in the Third Third Preamble at 55 Fed. Reg. 22659 (June 1, 1990). However, we have been unable to find any specific discussion of how this provision would apply to F-listed wastes which also exhibit the characteristic of ignitability. Moreover, we understand that different waste management vendors reach different conclusions about the proper paperwork concerning such wastes. We therefore request confirmation of our interpretation of the LDR regulations in the following cases:

1. Is it true that F003 waste comprised solely of spent acetone (which is listed only for its ignitable properties) does not also need a D001 waste code entry on the LDR notification because the F003 treatment standard

GOODWIN, PROCTER & HOAR

Deborah Brown, Esq.

November 17, 1992

Page 2

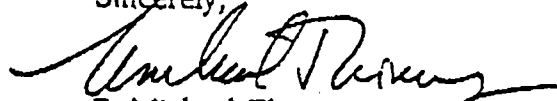
specifically addresses the constituent (acetone) that causes the ignitability, even though the technology-based treatment standard for high TOC D001 (FSUBS, RORGS or INCIN) is not precisely the equivalent of the CCW treatment standard of 160 mg/l acetone?

2. Is it true that F005 comprised solely of spent methyl ethyl ketone, which is ignitable and toxic, does not need a D001 waste code for the reason cited in Case 1 above? Is it also true that the D035 treatment standard, when published, will not need to be additionally shown on the LDR notification because the constituent (methyl ethyl ketone) causing toxicity for D035 has already been addressed in the F005 treatment standard?

3. Assuming that the F-list treatment standards operate in lieu of the characteristic treatment standards for the waste streams described above, please confirm that for all purposes other than compliance with the LDR requirements, e.g., for purposes of the hazardous waste manifests accompanying such shipments and for other descriptive purposes like Part A applications, only the F-list waste codes are necessary to provide a complete description of the waste stream.

Your assistance with this inquiry will be greatly appreciated.

Sincerely,



E. Michael Thomas



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

CLARE Stanley

102

July 15, 1993

Nick Skoularkis, Ph.D.,  
Project Manager  
Loureiro Engineering Associates, P.C.  
100 Northwest Drive  
Plainville, CT 06062

✓

Dear Dr. Skoularkis:

I am writing to you in response to your correspondence dated November 16, 1992 requesting EPA's interpretation on whether an interim status facility, under the current regulations, would be allowed to excavate contaminated soils, place them in a containment building constructed for that purpose and within 90 days, treat the soils adequately so that they no longer contain hazardous waste and/or hazardous constituents.

It is possible to conduct storage and treatment in a containment building providing the requirements of 40 CFR Part 265, Subpart DD are complied with. These requirements became effective on February 18, 1993. An owner or operator that began operating a containment building under these provisions prior to the effective date was required to notify the Regional Administrator of his/her intent to comply with the requirements of Subpart DD prior to the beginning of operation. Subsequent to the effective date, a PE certification is required prior to operation of the unit.

Generators who accumulate or treat hazardous waste in containment buildings must comply with 40 CFR § 262.34(a)(1)(iv) as well as meet the same substantive standards as permitted and interim status units under 40 CFR Part 264 Subpart DD and Part 265 Subpart DD, respectively, without obtaining a permit or interim status as long as thermal treatment is not involved. This includes the requirement of obtaining certification by a professional engineer that the unit is designed and constructed to meet the requirements for containment buildings, maintain such certification at the facility, and for the 90-day accumulation exclusion, maintain documentation showing no hazardous waste remains in the unit for greater than 90 days as required by 40 CFR § 262.34(a)(1)(iv). These requirements may be found at 57 FR 37264 of the August 18, 1992 Federal Register.

If a generator choose to treat a prohibited hazardous waste in containment buildings in order to meet applicable 40 CFR Part 268, Subpart D treatment standards, he or she must comply with the waste analysis plan requirements of 40 CFR § 268.7(a)(4).

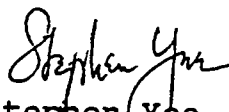


codifies the "contained-in" policy with respect to contaminated debris. The rule also published revised treatment standards for debris as defined in the rule which are contaminated with listed prohibited wastes. The rule specifies acceptable treatment technologies for the hazardous debris and as an alternative, hazardous debris may continue to be handled in accordance with the "contained-in" policy, and so may be land disposed if it no longer "contains" a hazardous waste. The treated debris which has met the performance standards and not exhibit any characteristic of hazardous waste would not be prohibited from land disposal or reuse. However, residuals generated from the treatment of debris contaminated with listed waste would still be hazardous wastes by virtue of the derived-from rule and would be subject to the numerical treatment standards for the wastes contaminating the debris. Please note that the case-by-case capacity variance for certain hazardous debris was granted a one year extension from the effective date of May 8, 1993. A generator wishing to take advantage of this variance must submit to EPA in Washington, D.C., proof that they have made a good faith to find capacity (58 FR 28506, May 14, 1993).

In addition, your letter indicated that the contaminated soils were located at a RCRA interim status facility, as such, the facility is subject to corrective action. Any remediation effort shall include, at a minimum, an assessment of the nature and extent of contamination, impacts upon any ground water sources, a sampling and analysis plan, treatment standards to be achieved during the treatment of the soils, etc.

If you have any questions, please do not hesitate to contact me at (617) 573-5644 or Elaine Stanley at (617) 223-5515.

Sincerely,

  
Stephen Yee,  
Environmental Engineer  
CT Waste Regulation Section

cc: David Nash, CTDEP  
George Dews, CTDEP  
Elaine Stanley, EPA  
Matt Hoagland, EPA  
John Podgurski, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

*Ken Rota*  
*Thanks*  
*for your*  
*help!*

June 30, 1993

Mr. Michael J. Pacana, Manager  
Tank Cleaning Operations  
Matlack, Inc.  
One Rollins Plaza  
P.O. Box 8789  
Wilmington, DE 19899

Dear Mr. Pacana:

Thank you for your inquiry dated May 14, 1993 regarding tank cleaning facilities and RCRA standards. Your letter raised some important issues which I will address.

In your letter you requested this Region's position on whether a transfer facility pursuant to 40 C.F.R. Part 263 may be subject to a RCRA permit. You described the activity as the removal of residues from cargo tanks and tank cars and repackaging the residues in Department of Transportation (DOT) approved containers. These DOT containers would then be returned to the original treatment, storage or disposal facility (or a different facility with the approval of the generator).

We do not believe a RCRA permit is required of a transfer facility for these activities provided the waste is received on a hazardous waste manifest and there is no treatment, storage or disposal of hazardous waste. As you know, if as a result of these activities a hazardous waste is generated, the transfer facility becomes a generator subject to the standards of 40 C.F.R. Part 262. Subsequent transportation of these hazardous wastes is subject to the standards for transporters at 40 C.F.R. Part 263.

As you know, EPA Headquarters has organized a workgroup to address this issue. This region may change its position to conform with future national policy on this issue. The EPA contact for this group is Mr. Allen Maples in the Characteristic Assessment Division, Office of Solid Waste. Mr. Maples may be reached at (202) 260-9556.

If you have any questions, please contact John Smaldone, my Special Assistant, at (617) 565-9125.

Sincerely,

*Paul Keough*

Paul G. Keough  
Acting Regional Administrator





122  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

May 26, 1993

John G. Ferland, General Manager  
Clean Casco Bay, Inc.  
48 Union Wharf  
P.O. Box 387  
Portland, Maine 04112

Re: Applicability of the Resource Conservation and Recovery Act (RCRA) to the activities of Clean Casco Bay, Inc. (CCB)

Dear Mr. Ferland:

This is in response to your letter dated July 14, 1992, requesting EPA's position on the applicability of certain portions of regulations promulgated pursuant to the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 et seq. to activities undertaken by your corporation. Your letter stated that Clean Casco Bay, Inc. (CCB) plans to contain and recover materials spilled into the waters of Casco Bay or into the open ocean, and that some of these materials might be hazardous waste as defined by RCRA. Therefore, you requested the Region's interpretation of the applicability of portions of RCRA to these activities.

Under the scenario set out in your letter, CCB would not be a "generator" as defined by RCRA. In the ordinary course of business, CCB's oil collection activities and towing of oil recovery containers would qualify CCB as a RCRA "transporter," pursuant to 40 C.F.R. Part 263. However, your letter states that CCB will contain and recover materials spilled at sea solely during emergency or "immediate response" situations. Title 40 C.F.R. § 270.1(c)(3) provides a temporary exclusion from RCRA for treatment or containment activities taken during an immediate response to a discharge of hazardous waste; an imminent and substantial threat of a discharge of hazardous waste; and, a discharge of a material which, when discharged, becomes a hazardous waste.<sup>1</sup> Title 40 C.F.R. Part 263 provides that any local, state or federal authority with responsibility for protecting human health and the environment has the authority to waive EPA identification number and manifesting requirements.<sup>2</sup> Thus, in immediate response situations as described above, CCB would not be subject to the RCRA transporter requirements.

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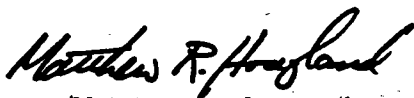
<sup>1</sup> However, please note that 40 C.F.R. § 270.1(c)(3)(ii) states that "any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part for those activities."

<sup>2</sup> See 40 C.F.R. §§ 263.30 and 263.31.

Finally, based on the description of your activities set out in your letter, it is Region I's conclusion that you are not a RCRA "facility."<sup>3</sup> However, should CCB store hazardous waste or hazardous constituents on its vessel or in tanks for longer than ten days, the vessel and/or tanks might become a hazardous waste storage facility and subject to all applicable RCRA regulations.<sup>4</sup>

If you have any further questions regarding this matter, please contact Kenneth Rota of the RCRA Enforcement Unit at (617) 573-5759 or Joshua Secunda of the Office of Regional Counsel at (617) 565-3433.

Sincerely,



Matthew R. Hoagland, Chief  
ME, NH & VT Section

cc: Scott Whittier, Maine DEP

---

<sup>3</sup> Title 40 CFR § 260.10 defines a "facility" as:

all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

<sup>4</sup> See 40 C.F.R. Part 265. Further, in such a case, CCB would be required to obtain a RCRA permit for storage pursuant to 40 CFR § 270.1(c).

Sent ~ 5/4/93

Cynthia A. Adams, Environmental Engineer  
Colt's Manufacturing Company, Inc.  
P.O. Box 1868  
Hartford, CT 06144-1868

Dear Ms. Adams:

This letter is in response to your April 27, 1993 letter requesting EPA's opinion of the regulatory status concerning a rejected shipment of baghouse dust from a Canadian facility. Specifically, 26,540 pounds of baghouse dust contaminated with lead was rejected by Stablex, Canada, Inc. located in Blainville, Quebec, Canada for radioactivity levels above 0.1 becquerels per gram. This shipment was manifested on the State of Rhode Island hazardous waste manifest number RID0023228.

EPA has contacted representatives of your office, the primary exporter, Northland Environmental, Inc., the Nuclear Regulatory Commission, and other experts from both the public and private sectors about this matter. Based on our investigation and discussions with all parties involved, the baghouse dust does not appear to be regulated as a low level radioactive waste.

According to Jim Mitch, president, Northland Environmental Group, the level of radioactivity detected in the baghouse dust was approximately 2.1 becquerels per gram. This translates to a radioactivity level of approximately  $2.2 \times 10^{-14}$  disintegrations per sec. According to Steve Courtemanche, of the Nuclear Regulatory Commission, this level of activity is roughly equivalent to environmental (background) levels. As a comparison, Mr. Courtemanche stated that the level of radioactivity associated with a smoke detector, which is not regulated, is approximately one million times greater than the levels detected in the baghouse dust. Mr. Courtemanche also stated that the type of equipment needed to conduct such low measurements for radioactivity are extremely sophisticated. The fact that this reading was allegedly taken using hand held equipment makes the results suspect.

EPA agrees with this opinion. Based on discussions between yourself and Ken Rota of my staff, the cleanout of the baghouse unit at your facility generated a total of four containers of baghouse dust. Three of these containers were not found to be radioactive. Because all of the material came from the same unit, the validity of the testing conducted is questionable.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

April 30, 1993

Mr. Steven D. Murphy  
Lead Planning Analyst  
State of Connecticut  
Office of Policy and Management  
80 Washington Street  
Hartford, CT 06106-4459

Dear Mr. Murphy:

It was a pleasure to meet you at EPA Region I's Environmental Awards Ceremony. Your inquiry on federal regulation of fluorescent light bulbs under the Resource Conservation And Recovery Act (RCRA) is an important issue in a very complex area of environmental regulation.

It is my understanding that the condition of the light bulbs and their intended disposition are important factors in whether certain federal RCRA regulations apply. For example, under federal law spent (non-working) fluorescent light bulbs to be discarded are a RCRA regulated solid waste. Therefore, these bulbs must undergo a hazardous waste determination before disposal. This determination can be made either through knowledge of the materials contained in the light bulbs or by testing them through application of the Toxicity Characteristic Leaching Procedures (TCLP) (see 40 CFR Part 262.11).

If the bulbs are in working condition and are to be recycled, they are not subject to regulation under RCRA. However, if working light bulbs are to be discarded, they are subject to the same requirements as set out in the preceding paragraph. Finally, fluorescent light bulbs from residential (household) sources only, and which are recycled, are not regulated under RCRA. The residential sources of these light bulbs must be demonstrated.

You should note that Small Quantity Generators (SQGs) of hazardous waste are afforded certain exemptions from federal RCRA standards. Under federal law, a Small Quantity Generator (SQG) may generate no more than a total of 220 pounds of hazardous waste per month (see 40 CFR Part 260.10). As you are aware, states may have additional requirements.



Mr. Murphy  
Page 2

EPA Headquarters has organized a Fluorescent Light Workgroup to evaluate available information on fluorescent lights and to make recommendations for EPA action. The contact for this workgroup is Ms. Charlotte Mooney. She may be reached at (202) 260-6926.

I hope this information has been helpful. If I may be of any additional assistance please contact me at (617) 565-3402 or John Smaldone, my Special Assistant, at (617) 565-9125.

Sincerely,



Paul G. Keough  
Acting Regional Administrator

cc: Deborah Brown, ORC  
Ken Rota, WMD



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

April 21, 1993

Mr. James Maher  
Environmental Processing  
Associates, Incorporated  
Foundry Industrial Park  
Building 1A Foundry Street  
Lowell, MA 01852

Dear Mr. Maher:

This letter comes in response to your letter of March 1, 1993 and a follow-up letter dated March 29, 1993 requesting guidance on how materials Electronic Processing Associates markets fits into the federal hazardous waste regulations.

As stated in your March 29th letter, Electronics Processing Associates operations consist of receiving computer terminals or televisions sets at the facility and separating the materials into recoverable categories, one of which is the spent CRTs. The CRTs are then processed by releasing the pressure within the CRT, removing steel bands and crushing the remaining casing for use by a customer.

Electronics Processing Associates has been issued a Class A recycling permit from the Massachusetts Department of Environmental Protection (MA DEP). In issuing this permit the MA DEP has presumably considered all the process information submitted by your company and has deemed the process a form of recycling which would be environmentally desirable to alternative disposal methods. At the present time, EPA chooses to defer to the MA DEP's issuance of a recycling permit and the selection of permit conditions which should act as incentives to proper waste management.

40 C.F.R. § 261.1 (c)(4) states that, "a material is reclaimed if it is processed to recover a usable product, or if it is regenerated." The CRT process described in your letters is considered reclamation only if all hazardous constituents are being processed to recover a usable product. Assuming all hazardous constituents remaining as a result of Electronic Processing Associates' processing of CRTs are reused by a customer or by Electronics Processing Associates, and considering other criteria such as intent and financial incentives, this process may be considered reclamation, a form of recycling.

OPTIONAL FORM 99 (7-90)

## FAX TRANSMITTAL

# of pages 2

To: Jim Maher	From: Lisa Felt
Dept./Agency	Phone: 513 5743
Fax: 1-508-970-3700	Fax: 513 9662

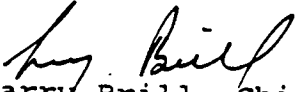
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

COPY



If you have any additional questions regarding your process and its relationship to the federal hazardous waste regulations, please contact Lisa Papetti of my staff at (617) 573-5745.

Sincerely,

  
Larry Brill, Chief  
MA Waste Management Branch

cc: Gary Gosbee, EPA  
Lisa Papetti, EPA  
Steve DeGabriele, MA DEP

4/14/93

Peter Knych, Esquire  
O'Hara & Hanlon  
Attorneys at Law  
One Park Place  
Syracuse, New York 13202

Dear Mr. Knych:

This letter is in response to your February 10, 1993 letter on behalf of Coyne Textile Services. In your letter you requested that EPA Region I consider withdrawing or modifying its position regarding the regulatory status of soiled textiles. Region I has considered your request.

First, Region I calls to your attention that all of the states in Region I have been authorized to administer the base Resource Conservation and Recovery Act (RCRA) hazardous waste program, which includes issues associated with hazardous waste identification. Under this authorization, states enforce their own rules and regulations in lieu of the Federal program. Region I believes that this effectively renders the regulatory status of solvent contaminated wipers a state issue.

Secondly, as we discussed in our January 20, 1993 meeting, the issue as presented to us, is whether EPA is willing to create a limited exemption from the full RCRA regulatory scheme for solvent contaminated wipers that are to be reclaimed (laundered). The Region maintains that under its RCRA authority, any such Federal waste stream exemption can only be developed, if at all, on a national level. As you are also aware, there are currently at least two pending petitions on the national level which seek such a regulatory exemption for solvent contaminated wipers. As your letter notes, there may in fact be compelling reasons why such an exemption should exist. Your letter also points out, however, the compelling need to have this issue decided on a national level, mainly to reconcile the seemingly divergent state and Regional positions.

Further, you should note that it is our understanding that solvent contaminated wipers have been raised in conjunction with the universal waste stream discussions ongoing in Washington.

Finally, the Region's position regarding its regulatory interpretation of the status of solvent contaminated wipers, when queried directly of their status, as was the case in the Malcom Fox letter of January 22, 1992, remains unchanged. Region I maintains that contaminated wipers are solid waste when they are to be discarded. The contaminated wiper's are a spent material. If the wipers are being thrown away, then they are clearly being discarded. If the wipers are being laundered then they are being reclaimed. Under either scenario the wipers must be characterized as a solid waste as per 40 CFR 261.2.

Additionally, if the solid waste wipers are contaminated with a listed hazardous waste or are characteristic of a hazardous waste then they are a hazardous waste. (40 CFR 261.3)

If you have any further questions, please contact me at (617) 573-5700 or Richard Filosa of my staff at (617) 573-5777.

Sincerely,

Merrill S. Hohman, Director  
Waste Management Division

cc: Larry Brill  
David Webster  
Matthew Hoagland  
Bob Cianciarullo  
Ken Rota  
Charlotte Mooney (EPA-HQ)  
Richard Filosa



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

April 9, 1993

The Honorable Bill Zeliff  
Member, House of Representatives  
340 Commercial St.  
Manchester, NH 03101

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL

# of pages 2

To	That Hoagland	From	Randy Brown
Dept./Agency	Waste	Phone #	565-3412
Fax #	573-9682	Fax #	565-3414

N3N 7540-01 317-7308 0099-101 GENERAL SERVICES ADMINISTRATION

Dear Mr. Zeliff:

Thank you for the opportunity to respond to Mr. William Fortune of Rochester, New Hampshire. Mr. Fortune's concerns deal with treatability studies for spent lead paint. Apparently, Mr. Fortune contacted your office after he spoke with the New Hampshire Department of Environmental Services (NHDES).

In his February 4, 1993 letter, Mr. Fortune provides information on his current and potential future lead removal operations. His goal is to minimize the volume of waste produced during lead paint removal operations. Mr. Fortune's chief concern appears to revolve around bringing "samples" to Rochester, NH "...where tests will be conducted to determine the best separation equipment design." Mr. Fortune requests "recognition" under 40 CFR 261.4 (d), (e) and (f) "for the sole purpose of conducting 'Treatability Studies' for spent lead paint."

On March 25, 1992, our office contacted Mr. Fortune. In that conversation, Mr. Fortune informed us that he seeks an exemption for shipping a sample containing spent lead paint waste, steel grit and water for testing at his Rochester, NH facility. This sample would not exceed 1000 kilograms. His treatability testing would involve: 1) separating the water, steel grit and lead paint waste from each other, and 2) further treatment of the water to precipitate dissolved lead ions. All lead solids produced from the treatability test would be handled as a hazardous waste.

Spent lead paint waste would meet the definition of solid waste under RCRA. Commonly, spent lead paint waste becomes a hazardous waste when a representative sample extract equals or exceeds 5 milligrams per liter (parts per million) using a standard testing procedure known as the Toxicity Characteristic Leaching Procedure (TCLP). Finally, our office has confirmed that Mr. Fortune's company, Industrial Consultants, Inc., has received an EPA Hazardous Waste Identification Number.

Mr. Fortune's testing plans, as we currently understand them, meet the RCRA treatability study definition found in 40 CFR 260.10. As his testing process proceeds, he must comply with all

other parts of RCRA, particularly §§ 261.4 (e) and (f). Several of the RCRA requirements that Mr. Fortune must comply with involve notification of the Regional Administrator because the State of New Hampshire is not authorized by the federal government to enforce the TCLP rules under the federal RCRA program. Thus, the TCLP rules are currently federal law.

As one final note, Mr. Fortune also mentions in his letter that water used in the lead paint removal process will be discharged "overboard." Mr. Fortune should be aware that such discharge would likely require a permit from EPA and/or the NHDES under National Pollution Discharge Elimination System (NPDES).

If you have any additional questions or concerns on this matter, please contact Matthew Hoagland at 617/573-5790.

Sincerely,

*Paul Keough*

Paul Keough,  
Acting Regional Administrator

cc: Philip J. O'Brien, NHDES

Log Report ?

*Pinella S. ... - Super*

*May 6, 1993*

*Responded to Mr Fortune's call.*

*He said that he has not been able to get information from NH.*

*I told Mr Fortune that he can proceed, but he must be in compliance with RCRA laws esp. the ones cited in this letter. I told him that he must also comply with state laws which are more stringent.*

*APR 11*

MAR 8 1993

Robert M. Quintal, Sales Engineer  
Energy Services  
Eagle Electric Supply Company, Inc.  
195 Old Colony Avenue  
Boston, MA 02127-2457

Dear Mr. Quintal:

Thank you for your letter of January 18, 1993 requesting information on mercury containing fluorescent lamps. The U.S. Environmental Protection Agency (EPA) has received numerous inquiries concerning the proper management of used fluorescent lamps. As you may be aware, recent data indicate that used fluorescent lamps may be a hazardous waste under the Federal hazardous waste identification criteria. Naturally, this has caused considerable concern to those who are responsible for the management of used lamp wastes.

EPA Headquarters is aware of these concerns and is currently working with both the States and the lighting industry to resolve the issues associated with this waste. Although the Agency is evaluating various management options, it is premature to speculate what, if any, changes may be made to the current regulatory program.

The proper disposal of used fluorescent lamps from sources other than households is determined by answering two questions:  
(1) is the used fluorescent lamp a hazardous waste; and, if yes,  
(2) what is your hazardous waste generator status?

1. Hazardous Waste Determination

Under the Resource Conservation and Recovery Act (RCRA) regulations, used fluorescent lamps are subject to evaluation against the RCRA hazardous waste determination requirements. The generator of the waste is responsible for making this determination. The regulations applicable to the identification and listing of hazardous waste are found at 40 C.F.R. Part 261.

				CONCURRENCES			
SURNAME	HRW	HRW	HRW	HRW			
DATE	2/26/93	2/26/93	3/2/93	3/3/93			

a. Are used fluorescent lamps a solid waste? Yes.

In order to be considered a Federal hazardous waste, any waste must first meet the definition of a solid waste. A solid waste is defined in 40 C.F.R. § 261.2. Simply stated, a solid waste is any discarded material that is not excluded under 40 C.F.R. § 261.4(a) or by variance granted under 40 C.F.R. §§ 260.30 and 260.31. Under 40 C.F.R. § 261.4(a) there are specific wastes that are excluded from the definition of solid waste, but used fluorescent lamps are not excluded wastes. Therefore, they are a solid waste regardless of whether you dispose of, burn, accumulate, store, treat, or recycle them. Since used fluorescent lamps are a solid waste, generators must then determine whether these lamps are a hazardous waste or not.

b. Are used fluorescent lamps a hazardous waste? They may be.

The definition of a hazardous waste is found at 40 C.F.R. § 261.3. Again, simply put, a solid waste is a hazardous waste if it is:

- A) Not excluded under 40 C.F.R. § 261.4(b);
- B) And it is listed under 40 C.F.R. §§ 261.31, 261.32, or 261.33;
- C) Or it exhibits one of the four characteristics (ignitability, corrosivity, reactivity and toxicity) of a hazardous waste found in 40 C.F.R. §§ 261.21, 261.22, 261.23, or 261.24;
- D) Or it is a solid waste that is mixed with any of the wastes listed in B) above.

Upon reviewing the criteria in 40 C.F.R. Section 261, it can be determined that used fluorescent lamps are not excluded from the definition of hazardous waste nor are they a listed hazardous waste. In most circumstances, used fluorescent lamps would not exhibit the hazardous waste characteristics of ignitability, corrosivity, or reactivity and, therefore, would not be considered hazardous for those characteristics.

A generator must then determine whether or not this waste exhibits a toxicity characteristic (TC). A generator may make this TC determination based either on knowledge of the material used in the waste (fluorescent lamp manufacturers may make information available to their customers to support a hazardous waste determination) or the results of the Toxicity Characteristic Leaching Procedure (TCLP). TCLP is an analysis performed on an extract from a representative sample of the

waste. If the extract from a used fluorescent lamp contains mercury contaminants at the concentration equal to or greater than 0.2 mg/l, the waste is hazardous. EPA is aware that the results of the TCLP on used fluorescent lamps may exceed the regulatory limit for mercury.

Used fluorescent lamps that are NOT a hazardous waste may be disposed of in accordance with applicable state and local solid waste requirements.

Used fluorescent lamps that are a hazardous waste must be managed in accordance with both State and Federal hazardous waste requirements. It is important to point out that the State hazardous waste programs often have additional and more restrictive hazardous waste management and disposal requirements than the Federal program. Since the Department of Environmental Protection (DEP) is the primary agency responsible for implementing the base RCRA program in Massachusetts, generators should contact Mr. James Miller, MA DEP, at 617/292-5853 for assistance in identifying the requirements they must comply with.

## 2. Categories of Hazardous Waste Generators

Under the Federal hazardous waste program, there are three categories of hazardous waste generators and each category has its own specific regulatory requirements. This discussion focuses on disposal requirements and does not discuss on-site management standards and requirements (i.e., storage, training, or accident prevention requirements). To determine a facility's hazardous waste generator category, the generator must include the total of all of its hazardous waste streams (not just used fluorescent lamps) generated per month. It is possible that the only waste some facilities will generate is used fluorescent lamps. The three generator categories and their disposal options are:

- i) Conditionally exempt small quantity generators (CESQGs):  
Generators of no more than 220 pounds (100 kg) of hazardous waste per month.

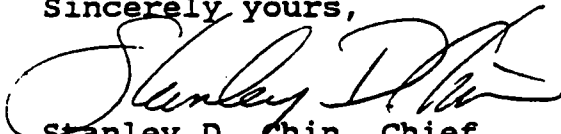
Hazardous waste generated by CESQGs may be disposed of at either a hazardous waste facility, or a landfill or other facility approved by the State for industrial or municipal wastes. Generators do not need to prepare a hazardous waste manifest nor use licensed hazardous waste haulers to deliver the waste to the destination facility.

- ii) Small quantity generators (SQGs): Generators of 220 to 2200 pounds (100-1000 kg) of hazardous waste per month; and,
- iii) Large quantity generators (LQGs): Generators of 2200 pounds (1000 kg) or more of hazardous waste per month.

Hazardous waste generated by SQGs and LQGs must be disposed of at a licensed hazardous waste facility and transported by a licensed hauler. A hazardous waste manifest must accompany each off-site waste shipment. In addition, LQGs should refer to the enclosed September, 1992 EPA Monthly Hotline Report on the applicability of EPA's Land Disposal Restrictions effective date for hazardous debris to used fluorescent light bulbs that exhibit the toxicity characteristic for mercury.

Also included for your information is a recent EPA publication containing information on the disposal of used lamps and ballasts from lighting upgrade projects. If you have additional questions, please contact Ms. Austine Frawley of my staff at 617/573-5758.

Sincerely yours,



Stanley D. Chin, Chief  
RCRA Support Section

Enclosures

cc: J. Miller, MA DEP  
L. Papetti, US EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

March 2, 1993

Jim Miller, Chief  
Compliance and Enforcement Branch  
Bureau of Waste Prevention  
Massachusetts DEP  
One Winter Street  
Boston, MA 02108

Dear Mr. Miller:

This letter is a followup to the January 6, 1993 meeting between the Massachusetts Department of Environmental Protection and EPA concerning EPA's authority to regulate mixed radioactive wastes and debris. These issues were raised at this meeting relevant to the continuing cleanup activities presently being conducted at the Watertown Arsenal. The issues, identified by number, and EPA's response are provided below:

1. Does EPA have any authority to regulate mixed radioactive wastes in Massachusetts?

No. Mixed radioactive wastes are part of the Non-HWSA Cluster III RCRA program requirements. Currently, the Commonwealth of Massachusetts is not authorized for this program element. As such, EPA does not and will not have the authority to regulate mixed radioactive waste in Massachusetts until the State receives authorization.

2. Does EPA have the authority in Massachusetts to enforce the mixed radioactive debris rules recently finalized under the Hazardous and Solid Waste Amendments (HWSA)?

No. The only types of hazardous wastes that HSWA allows EPA to regulate under its own authority are those wastes that meet the definition of hazardous under the Toxicity Characteristic Leaching Procedure (TCLP) found at 40 C.F.R. § 261.24. The TCLP became effective on September 25, 1990. EPA can only regulate other non-TC hazardous wastes if a State has received authorization from EPA before the TCLP was in effect. Since mixed radioactive wastes are not part of the TCLP listings, EPA does not and will not have any authority to regulate mixed radioactive debris in Massachusetts until the State receives authorization.



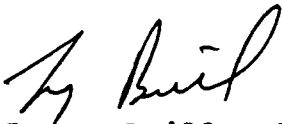
3. Does EPA have the authority in Massachusetts to enforce the Land Disposal Restriction (LDR) regulations for mixed radioactive wastes?

No, for the same reasons as stated in number 2 above, mixed radioactive wastes are not part of the TCLP, and the Commonwealth of Massachusetts is not authorized for the regulation of mixed radioactive wastes by EPA. Therefore, EPA does not and will not have any authority to regulate the land disposal of this type of waste in Massachusetts until the State receives authorization.

Although EPA has not authorized the Commonwealth of Massachusetts for the regulation of mixed radioactive wastes, this does not preclude Massachusetts from regulating these wastes under its own authority.

Please contact Kenneth Rota (617) 573-5759 or Joan Serra (617) 223-5527 of my staff if we can be of further assistance.

Sincerely,



Larry Brill, Chief  
Massachusetts Waste Management Branch



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

February 23, 1993

Mr. Robert T. Pfisterer  
Production Manager  
Pfizer Incorporated  
Eastern Point Road  
Groton, Connecticut 06340

EPA I.D. No. CTD001147495

Re: Release of Contaminated Soils from RCRA Subtitle C  
Management Requirements Contingent Upon Disposal as CTDEP  
Special Waste.

Dear Mr. Pfisterer:

The Environmental Protection Agency has reviewed data submitted by Pfizer regarding certain contaminated soils that were treated above-ground using vacuum extraction. These soils were originally contaminated by listed hazardous wastes. Therefore, they are subject to management requirements pursuant to Subtitle C of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. §§ 9601 et seq. However, as you are aware, EPA may make case-by-case determinations as to whether particular contaminated media, such as soil and groundwater, may be released from Subtitle C management requirements based on the level of residual risk posed by the contaminated media after treatment.

Accordingly, EPA has determined that the soils characterized in the September 22, 1992 submittal by Recra Environmental Inc. on behalf of Pfizer may be released from Subtitle C management requirements. This release is contingent upon: (1) management in accordance with State of Connecticut Department of Environmental Protection Special Waste disposal requirements, Connecticut Hazardous Waste Management Regulation 22a-209-8; and (2) written verification to EPA that such management has taken place.

Alternatively, as orally conveyed to Pfizer by EPA staff, Pfizer may propose delivering the soils to a facility that beneficially uses or reuses, or legitimately recycles or reclaims the waste, or treats the waste prior to such beneficial use, reuse, recycling or reclamation.

EPA's decision is based in part on human health risk estimates which indicate that several compounds, to wit benzo(a)pyrene, benzo(b)&(k)fluoranthene, and arsenic, are present in the soils at levels that exceed acceptable residential exposures. However, the concentrations do not exceed acceptable exposure levels under an industrial exposure scenario, such as that posed by landfill disposal.

The DEP views resolution of the issues played out in the protocols critical to its ongoing 21E site remediation work, and welcomes EPA's timely input in their development.

Very truly yours,



Thomas B. Powers  
Deputy Commissioner

cc: Paul Keough, Assistant Regional Administrator EPA Region I  
Donald Clay, Assistant Administrator, OSWER, EPA, Washington  
James Colman, Assistant Commissioner  
Patricia Stanton, Assistant Commissioner  
Steve Lipman, Boston Harbor Coordinator  
Bill Sirull, DHW  
John Carrigan, DHW  
Gerald Levy, EPA Branch Chief  
Gary Gosbee, EPA Section Chief  
Madeline Snow, BWSC, Division Director  
Helen Waldorf, BWSC,



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

December 13, 1994

Mr. David Crosson  
Infocus Inc.  
707 State Road, Suite 102  
Princeton, NJ 08540-1434

Dear Mr. Crosson:

Thank you for your November 17, 1994 letter in which you forwarded information concerning a remediation process in which mercury can be recovered and recycled.

As you may know, the U. S. Environmental Protection Agency operates the Superfund Innovative Technology Evaluation Program (SITE). This program supports development of technologies for assessing and treating wastes at Superfund sites. The demonstration program provides an opportunity for technology developers to demonstrate their technologies' capabilities to successfully process and remediate Superfund waste. Success in EPA's SITE Program may facilitate consideration of your technology at appropriate Superfund sites in New England. You may wish to contact John Martin, SITE Program contact, at (513) 569-7758 or Ruth Bleyler, Regional Liason at (617) 573-5792.

In addition, I have forwarded the information which you sent, to John Hackler of our Solid Waste and Waste Minimization Program. John may be reached at (617) 573-9670. I have similarly notified Mark Mahoney of our Pollution Prevention Program. Mark may be reached at (617) 565-1155.

As mercury contaminated soils may also be found at facilities conducting cleanup under the Resource Conservation and Recovery Act (RCRA), I have notified Matt Hoagland of the RCRA Corrective Action Program of your services. Matt may be reached at (617) 573-5790.

Finally, I have enclosed an application for EPA's Vendor Information System for Innovative Treatment Technologies. You may wish to use this application to contact EPA's Technology Innovation Office for inclusion in the VISITT data base.



VISITT gives innovative technology companies an opportunity to market their capabilities nationally, and enables federal, state and private sector environmental professionals to screen innovative technologies for application to specific sites.

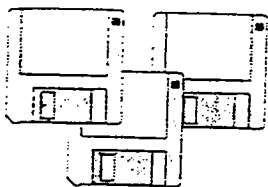
If you have questions or are in need of additional assistance, please contact John Smaldone, of my staff, at (617) 223-5519.

Sincerely,

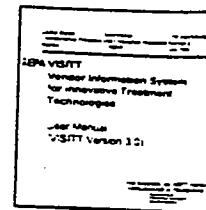


Dennis Huebner, Chief  
Superfund I Branch

cc: John Hackler ✓  
Mark Mahoney  
Ruth Bleyler  
Matt Hoagland



# Ordering VISITT 3.0



To order the VISITT 3.0 diskettes and user manual, and to become a registered user, please complete this order and registration form and mail or fax it to the location indicated below. VISITT 3.0 is available at NO CHARGE. VISITT 3.0 also is available on EPA's CLU-IN Bulletin Board (see page 4 for details).

**IMPORTANT:** All registered users of version 1.0 and 2.0 should complete this form and mail or fax it to the location indicated below.

**Special Note to EPA Staff:** TIO is working directly with EPA Headquarters and Regional offices, EPA laboratories, and EPA libraries to install VISITT on LANs and at workstations. For more information, contact the OSWER Technology Innovation Office.

## U.S. EPA Vendor Information System for Innovative Treatment Technologies (VISITT) Version 3.0 Order and Registration Form

Mail to: U.S. EPA/NCEPI

P.O. Box 42419

or

Cincinnati, OH 45242-0419

Fax to: U.S. EPA/NCEPI

(513) 891-6685

(Verification : (513) 891-6561)

Please type or print legibly. Allow 3-4 weeks for delivery.

Name: \_\_\_\_\_

Company/Agency \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Country \_\_\_\_\_ Telephone Number \_\_\_\_\_

Date Ordered \_\_\_\_\_

\_\_\_\_\_ Register me as a VISITT user.

\_\_\_\_\_ Send me VISITT 3.0 diskettes and a user manual.

\_\_\_\_\_ Diskette size (check one) 3-1/2" \_\_\_\_\_ 5-1/4" \_\_\_\_\_

\_\_\_\_\_ Send me a VISITT 3.0 user manual only.

\_\_\_\_\_ I am an innovative treatment technology vendor and would like to receive an application to be included in VISITT 4.0. Place me on the VISITT 4.0 Application Mailing List.

\_\_\_\_\_ I am an innovative measurement or monitoring technology vendor and would like to receive an application for the new measurement and monitoring vendor database. Place me on the Measurement/Monitoring Database Application Mailing List.

Insert



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
ONE CONGRESS STREET  
BOSTON, MASSACHUSETTS 02203-2211

August 12, 1994

Mr. Paul Raftery, President  
Western Oil  
333 Cottage Street  
Pawtucket, Rhode Island 02860

Dear Mr. Raftery:

This is in response to your letter dated May 24, 1994. Your letter states that you are a licensed hazardous waste transporter and that you propose to test waste oil using a Dexsil Clor-D-Tect test kit. Based on the results of the test, you ask whether waste oil with a total halogen content of less than one thousand ppm could be classified as a Massachusetts hazardous waste code MA98 (off-specification) rather than as MA01 (hazardous waste.)

The Dexsil Clor-D-Tect test kit has been referenced in the proposed SW-846 Method No. 9077 (Clor-D-Tect 1000). However, this is only a proposed regulation. Thus, the Dexsil Clor-D-Tect test is not yet an approved EPA method to determine total halogen content in waste oil.

EPA believes that waste oil with a halogen content less than 1000 ppm (determined by a currently valid test method) may be classified as an off-specification fuel.<sup>1</sup> Waste oil with a halogen content greater than 1000 ppm is presumed to be a hazardous waste and subject to the applicable regulations set out at 40 C.F.R. Parts 260-266, 268, 270 and 124.

Finally, pursuant to Section 3009 of RCRA, 42 U.S.C. § 6929, states are authorized to promulgate regulatory requirements more stringent than the federal analogues. Whether waste oil is properly classified as MA98 or MA01 is regulated under federally authorized Commonwealth of Massachusetts hazardous waste regulations. Therefore, please contact the Massachusetts Department of Environmental Protection for a definitive answer to this question.



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If you have any questions regarding this matter you may contact  
Mel R. Cheeks at 617-223-5590.

Sincerely,

*Paul L. Hoagland for*  
Matthew R. Hoagland, Chief  
Waste Regulation Section  
ME/NH/VT

<sup>1</sup>vol no. [57] Federal Register/Thursday, September 10, 1992/pg. 41601, VI.D.6,  
"A decision to market used oil as an off-specification fuel is solely an  
economic decision depending on the costs associated with marketing used oil as  
on-specification fuel (i.e., used oil fuel meeting the specification limits).  
In the former case, used oil is shipped, as generated or consolidated without  
any processing, to an industrial boiler or furnace. In the later case,  
however, used oil is blended or processed to produce on-specification used oil  
fuel and is analyzed to document the claim that it meets the specification  
limits."

cc: Fred Friedman  
RCRA Library

Lisa Papetti  
MA Section

Steve Berkstrom  
MADEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT 30 1990

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Regulatory Determination on Used Oil Filters

FROM: Sylvia Lowrance, Director  
Office of Solid Waste

TO: Robert L. Duprey, Director (8HWM-RI)  
Hazardous Waste Management Division  
EPA Region VIII

Thank you for your memorandum of August 30, 1990, requesting a regulatory interpretation of the status of used oil filters under the new Toxicity Characteristic (TC). In your memorandum, you inquired about used oil filters that are crushed in vehicle maintenance shops, where a certain portion of the residual used oil in the filter is separated from the filter. The answers to the specific questions you asked are listed below.

1. The Toxicity Characteristic Leaching Procedure (TCLP) is performed on used oil filters by crushing, cutting or grinding the waste (filter plus contents) until the pieces are smaller than 1 centimeter in their narrowest dimension (and thus are capable of passing through a 9.5 mm standard sieve). See Step No. 7.3 of the TCLP. The surface area criterion referred to in Step 7.3 does not apply to used oil filters. (Note: If the generator recycles both the used oil and metal, you do not need to test because recycling of both types of materials is exempted from hazardous waste regulation as discussed below.)

2. and 3. Assuming a used oil filter exhibits the TC, you had inquired whether the act of crushing filters is regulated treatment or exempt recycling. Generally, the types of used oil filter crushers you described would not be regulated if the used oil was being recycled (see 40 CFR 261.6(a)(2)(iii) and (a)(3)(iii)). That is, since the purpose of the crushing is to remove the used oil for recycling, we view the crushing to fall within the used oil recycling exemption. The crushing may be performed on- or off-site, for profit or not. The determining factor is whether the used oil will be recycled. The filter may be shipped off-site for crushing under the recycling exemption, provided the oil is collected for recycling.

4. Generally, automotive oil filters are not considered to be containers because they are designed to filter particulates from oil that circulates through them, not devices for the storage of oil. As a result, a filter could not be an "empty container" under 40 CFR 261.7. However, as described next, a drained or crushed filter is considered scrap metal, and scrap metal is exempt from regulation when recycled.

Under the definition of "solid waste," EPA has determined that "recycled hazardous scrap metal is a solid waste when disposed of or recycled" (see 50 FR 624, January 4, 1985). However, pursuant to section 261.6(a)(3)(iv), hazardous scrap metal is exempted from Subtitle C regulation when recycled. The scrap metal recycling exemption in 40 CFR 261.6(a)(3)(iv) is applicable to used oil filters (scrap metal) that are going to be recycled. However, an undrained or uncrushed oil filter would contain too much oil to qualify for the scrap metal exemption. The January 4, 1985 preamble provided examples of items qualifying for the exemption, such as bars, turnings, rods, sheets, wire (i.e., scrap metal that is going to be recycled to recover their metal content) and examples that do not qualify, including metal-containing waste with a significant liquid component, such as spent batteries.

To increase the probability that the used oil filter (hazardous scrap metal) will qualify for the scrap metal recycling exemption, the generator or recycling facility should drain (gravity) the filter for an amount of time sufficient to ensure that all free-flowing oil is removed. The amount of drain time will vary based on a number of variables, including the size of the filter and temperature (both ambient and that of the filter). Alternately, the generator or recycling facility could crush the oil filter using the most appropriate crushing method that will force excess residual oil from the filter. We will be examining this issue further, but we currently have no information indicating that substantial amounts of oil will remain in the filter after either sufficient draining or adequate crushing. As a best operating practice, the Agency recommends that the generator or recycling facility both drain and crush used oil filters to be certain that the used oil filters would qualify for the hazardous scrap metal recycling exemption.

If the crushed or drained filter will be recycled, it is unnecessary to determine whether it exhibits the TC because the scrap metal exemption is applicable. It would also be unnecessary to manifest these used oil filters if they will be recycled. However, if the filter will be disposed of, the generator must determine if it is hazardous under the TC. If the filter is hazardous waste, the 261.2-261.21 and 268 regulations apply to the generator, and Parts 264 and 265 apply to the treatment, storage and disposal facilities. If the waste filters may be disposed in a Subtitle D facility,

Finally, in the sales brochures you sent, there was mention of an open container used to accumulate the used oil after the filter was crushed. (Currently, used oil accumulation by generators is not regulated if the used oil is recycled, but EPA did propose that such containers be kept closed. See 50 FR 49252, November 29, 1985.) Storage or accumulation of characteristically hazardous used oil is regulated if the used oil is to be disposed of; in that case, the containers must be closed except when adding or removing the used oil (per §265.173(a)).

Please contact Daryl Moore at (202) 475-8551 if you have any additional questions on the applicability of the Federal hazardous waste regulations with respect to used oil filters.

cc: Waste Management Division Directors, Regions I - VII and IX - X  
Jeff Denit  
RCRA/Superfund Hotline  
Regional TC Contacts



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
ONE CONGRESS STREET  
BOSTON, MASSACHUSETTS 02203-2211

July 6, 1994

Randall H. Morse  
Vice President  
Schleicher & Schuell  
10 Opticle Avenue  
P.O. Box 2012  
Keene, NH 03431-2012

Dear Mr. Morse:

This letter is in response to your letter dated May 6, 1994 regarding the waste handling requirements for ethidium bromide EtBr. In your letter you stated that EtBr is commonly used by scientists in molecular biology research laboratories to stain double-stranded DNA fractionated in agarose electrophoresis gels.

You specifically asked the following questions in your letter:

- Is ethidium bromide EtBr controlled by EPA?
- Is it found on any list of any sub-division of the EPA, such as TSCA, SARA, or RCRA?
- What EPA regulations govern EtBr?
- What concentrations are permissible for drain disposal?
- What distinctions are made for the disposal of EtBr as a solid waste (on a filter), or as a liquid waste (down the drain)?
- What are the appropriate regulations for disposal as a liquid or as a solid?

Please be advised that the information provided here is with reference to Federal Regulations only. Individual states are very likely to have laws that are broader or more stringent than Federal laws.

Under RCRA Subtitle C hazardous waste regulations, each generator of a waste is responsible for making a hazardous waste determination under 40 CFR §262.11. If the waste exhibits one of the four characteristics of hazardous waste identified in Subpart C of Part 261 (i.e. ignitability, corrosivity, reactivity or toxicity) or is a waste listed in Subpart D of Part 261, it must be managed in accordance with Federal hazardous waste



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regulations. EtBr is not listed in Subpart D of Part 261. The determination of EtBr as a characteristic hazardous waste would be accomplished by testing it in accordance with the procedures stated in Subpart C of Part 261.

During telephone conversations with our office you indicated that your company was developing a product that would treat the EtBr waste stream on-site. The treatment of spent or used EtBr, if determined to be a hazardous waste, would not require the issuance of a permit for on-site treatment prior to disposal so long as the treatment occurs within 90 days of generation and the treatment takes place in an accumulation container or tank in conformance with the requirements of 40 C.F.R. § 262.34 and Subparts I and J of 40 C.F.R. Part 265 (Standards for containers and tank systems). You can contact Mel Cheeks for further information pertaining to Federal RCRA regulations.

The General Pretreatment Regulations at 40 CFR Part 403 govern discharges to municipal sewer systems. For those industrial sources that are covered by a specific categorical pretreatment standard, that facility must comply with the specific effluent guidelines established in that category. However, if local ordinances/requirements are established by municipalities that are more stringent than categorical limits, the more stringent of the two standards (i.e., local limits or categorical standards) would need to be complied with. For specific information pertaining to these regulations contact Mark Spinale of the Water Management Division of EPA.

Regarding the discharge of EtBr through a sewer system into the ground, the Safe Drinking Water Act, Part C (42 U.S.C. 300f et seq.) mandates regulation of underground injection of fluids through wells. EPA has promulgated a series of Underground Injection Control (UIC) regulations (40 CFR Parts 144, 145, 146) under this authority to protect underground sources of drinking water (USDW). All the New England states have UIC Programs that have been approved and delegated primacy per 40 CFR Part 145 to implement these regulations. States, as a condition of UIC primacy may adopt regulations more stringent than EPA. Owners or operators of injection wells are prohibited from allowing the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR Part 141, or may otherwise adversely affect human health. In New England, UIC Programs regulate primarily Class V wells which are those that discharge into or above a USDW. Floor drainage, liquid wastes, process wastewater, treated and untreated sewage, stormwater, washwater, spill drainage, etc. discharged to Class V UIC wells such as a well, leach field, leaching pit, leaching trench, dry well or a cesspool in commercial and industrial facilities pose a significant hazard to drinking water. Class V UIC wells used to inject RCRA defined hazardous waste banned by UIC regulations and Section 3020(a) of RCRA are reclassified Class IV UIC wells and are prohibited. For

specific information pertaining to these regulations contact David Delaney.

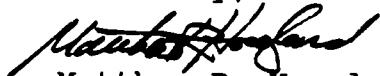
The Superfund Amendments and Reauthorization Act (SARA) has four major regulatory provisions, they are emergency planning, emergency notification, community right to know reporting requirements and toxic chemical reporting (Attachment A). For more specific information regarding the SARA program contact Dwight Peavey and Don Mackie.

The Toxic Substances Control Act (TSCA) has four major regulatory provisions, they are inventory and pre-manufacture notification, chemical testing, reporting and recordkeeping and regulation of hazardous chemical substances (Attachment B). For specific information pertaining to the TSCA program contact Kim Schweisberg.

Contaminated EtBr could possibly be classified as a medical waste if it were used in medical applications. Each state maintains their own medical waste program. EPA currently does not regulate medical waste. Attachment C is a list of state contacts that handle medical waste issues.

You may purchase your own set of Federal Regulations by contacting: Superintendent of Documents, Government Printing Office, Washington, DC 20402, (202) 783-3238. Attachment D provides a list of address and phone numbers for EPA-New England staff who can provide further assistance.

Sincerely,



Matthew R. Hoagland, Chief  
ME/NH/VT Waste Regulation Section

cc: ~~Research Library~~  
Research Library  
Mark Spinale - EPA  
David Delaney - EPA  
Kim E. Schweisbeg - EPA  
Joan Jouzaitis - EPA

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## 2H EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW

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### Purposes

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The Superfund Amendments and Reauthorization Act (SARA) of 1986 was enacted into law on October 17, 1986. An important component of the SARA provisions is Title III: Emergency Planning and Community Right-to-Know Act of 1986. Title III establishes requirements for Federal, State and local governments and industry regarding emergency planning and "community right-to-know" reporting on hazardous and toxic chemicals. This legislation builds upon EPA's Chemical Emergency Preparedness Program (CEPP) and numerous State and local programs aimed at helping communities to better meet their responsibilities in regard to potential chemical emergencies. The community right-to-know provisions will help to increase the public's knowledge and access to information on the presence of hazardous chemicals in their communities and releases of these chemicals into the environment. States and communities, working with facilities, will be better able to improve chemical safety and protect public health and the environment.

The emergency planning and community right-to-know provisions have four major sections: emergency planning (Sections 301-303), emergency releases notification (Section 304), community right-to-know reporting requirements (Sections 311, 312), and toxic chemical release reporting emissions inventory (Section 313). Information from these four reporting requirements will help States and communities develop a broad perspective of chemical hazards for the entire community as well as for individual facilities.

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### Major Regulatory Provisions

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#### Emergency Planning

Sections 301-303 of the law mandate that the Governor of each State organize a State Emergency Response Commission (SERC) which in turn designates Local Emergency Planning Committees (LEPC). The local committees are responsible for evaluating the available resources and developing emergency response plans for their communities.

#### Emergency Notification

Under Section 304, facilities must immediately notify the Local Emergency Planning Committees and the State Emergency Response Commissions likely to be affected if there is a release into the environment of a listed hazardous substance that exceeds the reportable quantity for that substance. Substances subject to this requirement are those on the list of 366 extremely hazardous substances as published in the Federal Register (40 CFR 355) or on a list of 721 substances subject to the emergency notification requirements under CERCLA Section 103(a) 40 CFR 302.4). Some chemicals are common to both lists.

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**Enforcement Authorities**

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Section 325 of the Emergency Planning and Community Right-to-Know Act addresses the penalties for failure to comply with the requirements of this law. Civil and administrative penalties ranging from up to \$10,000 - \$75,000 per violation can be assessed to facilities that fail to comply with the emergency planning (Section 302), emergency notification (Section 304), community right-to-know (Sections 311 and 312), toxic chemical release (Section 313) and trade secret (Sections 322 and 323) reporting requirements.

Criminal penalties up to \$50,000 or five years in prison may also be given to any person who knowingly and willfully fails to provide emergency release notification. Penalties of not more than \$20,000 and/or up to one year in prison may be given to any person who knowingly and willfully discloses any information entitled to protection as a trade secret. In addition, Section 326 allows citizens to initiate civil actions against EPA, State Emergency Response Commissions, and/or the owner or operator of a facility for failure to meet the requirements of the emergency planning and community right-to-know provisions. A State Emergency Response Commission, Local Emergency Planning Committee, State or local government may institute actions against facility owner/operators for failure to provide trade secret information.

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## 2E TOXIC SUBSTANCES CONTROL ACT (TSCA)

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### Purposes

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The Toxic Substances Control Act (TSCA), signed into law in October 1976, provides EPA with broad authority to regulate chemicals and chemical substances whose manufacture, processing, distribution in commerce, use or disposal may present an unreasonable risk of injury to health or the environment. The Act was enacted to keep harmful chemicals out of the environment and to fill the gaps in existing environmental laws in the areas of toxic substances.

The Act deals with all toxic chemicals planned for production, produced, imported, or exported from the country. TSCA applies primarily to manufacturers, distributors, processors, and importers of chemicals. The only exceptions to this authority are:

- Pesticides (as defined in FIFRA as a pesticide);
- Tobacco or tobacco products;
- Source material by-products or special nuclear material as defined by the Atomic Energy Act; and
- Food, food additives, drugs, and cosmetics under the Federal Food, Drug and Cosmetic Act.

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### Major Regulatory Provisions

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- Inventory and Pre-Manufacture Notification. If EPA determines that a new chemical substance poses a risk to health or the environment, it can prohibit or regulate its manufacture.

EPA has published an inventory of existing chemicals. Substances not on that list are considered "new," and require Pre-manufacture Notifications (PMN) to be submitted to EPA. Before manufacturing or importing new chemicals, or processing existing chemicals for significant new uses, notice must be submitted at least 90 days before manufacture, processing, shipping or sales (TSCA, Section 5). If EPA does not make a declaration within 90 days to restrict the product, then full marketing can begin, and the chemical is added to the inventory. Conversely, EPA may review the product data for an additional 90 days; negotiate for suitable data; prohibit manufacture or distribution until risk data are available; reject the PMN for insufficient data; or, pending development of a Section 6 rule, completely ban the product from the market.

- Testing. Under TSCA, Section 4, EPA can require product testing of any substance which "may present an unreasonable risk of injury to health or to the environment." Some testing standards are proposed, but no testing requirements for specific chemicals are yet in effect.

## ATTACHMENT B

- **Imminent Hazard.** Imminent hazard is defined as a chemical substance or mixture causing an imminent and unreasonable risk of serious or widespread injury to health or the environment. When such a condition prevails, EPA is authorized by TSCA, Section 7 to bring action in U.S. District Court. Remedies include:
  - Seizure of the chemical or any article containing such chemical;
  - Notice of risk to the affected population; or
  - Recall, replacement or repurchase of the substance.

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### **Enforcement Authority**

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- **EPA Inspection Authority.** Under Section 11, EPA "and duly designated representatives of the Administrator" may inspect any establishment, facility, or other premises in which chemical substances are manufactured, processed, stored, or used before or after their distribution in commerce, and any conveyance being used to transport chemical substances, mixtures, or such articles in connection with distribution in commerce.

An inspection shall extend to all things within the premises or conveyance inspected (including records, files, papers, processes, controls and facilities) bearing on whether the requirements of TSCA applicable to the chemical substances or mixtures within such premises or conveyance have been complied with. The only exceptions are that no inspection shall extend to financial data, or research data (other than data required under TSCA or regulations), unless the nature and extent of such data are described with reasonable specificity in the notice of inspection.

Inspections are to be commenced and completed with "reasonable promptness," and conducted at "reasonable times," within "reasonable limits," and in a "reasonable manner." Inspection may only be made upon:

- Presentation of proper credentials;
  - Presentation of a written notice of inspection to the owner, operator or agent in charge of the premises or conveyance; and
  - Separate notice for "each such inspection," but a notice shall not be required for each entry made during the period covered by the inspection.
- **Subpoena Authority.** EPA may require the attendance and testimony of witnesses under oath, and/or the production of documents. Subpoenas do not have to be issued by a Court, and can be used to investigate any activity TSCA prohibits.
  - **Authority to Regulate Imports.** EPA has authority to ensure that imported chemicals at a facility have the proper import documents. U.S. customs inspectors may refuse entry into the United States of foreign chemicals that fail to meet TSCA requirements.

ATTACHMENT C

2/94

MEDICAL WASTE CONTACTS

Washington, DC and Region I

U. S. Environmental Protection Agency

Special Programs Section (OS-332)  
Office of Solid Waste  
U. S. Environmental Protection Agency  
401 M Street, SW  
Washington, DC 20460

Michaelle Wilson, Chief, Special Programs: (202) 260-4669  
Kristina L. Meson: (202) 260-5736  
Ann Codrington: (202) 260-4777

Waste Management Division (HRW-CAN3)  
U. S. Environmental Protection Agency  
Region I  
J. F. Kennedy Federal Building  
Boston, MA 02203-2211

Robin Biscaia: (617) 573-5754  
Austine Frawley: (617) 573-5758

Other Federal Agencies

Research & Special Programs Administration (RSPA)  
U. S. Department of Transportation  
Mail Stop DHM22  
400 7th Street, SW  
Washington, DC 20590-0001

George E. Cushmac, PhD: (202) 366-4545  
Eileen Martin: (202) 366-4488

Occupational Safety & Health Administration (OSHA)  
U. S. Department of Labor  
Room N-3718  
200 Constitution Avenue, NW  
Washington, DC 20210

Kevin Landkrohn: (202) 523-7157

Occupational Safety & Health Administration (OSHA)  
U. S. Department of Labor  
133 Portland Street  
Boston, MA 02114

Ron Ratney: (617) 565-7164, x 130

ATTACHMENT C

State Agencies

Connecticut

Waste Management Bureau  
Connecticut Department of Environmental Protection  
165 Capitol Avenue  
Hartford, CT 06106

Maria Valez: (203) 566-5847  
Tom Pregman: (203) 566-5847

Massachusetts

Division of Community Sanitation  
Massachusetts Department of Public Health  
305 South Street  
Jamaica Plain, MA 02130

Howard Wensley, MS, CHO: (617) 727-2660

Division of Solid Waste  
Massachusetts Department of Environmental Protection  
One Winter Street  
Boston, MA 02108

James Decette: (617) 292-5868

Maine

Bureau of Hazardous Material & Solid Waste Control  
Maine Department of Environmental Protection  
State House Station #17  
Augusta, ME 04333-0017

Scott Austin: (207) 287-2651

New Hampshire

Waste Management Division  
New Hampshire Department of Environmental Services  
6 Hazen Drive  
Concord, NH 03301

Carl Woodbury: (603) 271-2925

ATTACHMENT C

Rhode Island

Office of the Director  
Rhode Island Department of Environmental Management  
9 Hayes Street  
Providence, RI 02908

Roger Greene: (401) 277-2771

Environmental Health/Risk Assessment  
Rhode Island Department of Health  
3 Capitol Hill  
Providence, RI 02908

Diann Miele: (401) 277-3424

Vermont

Hazardous Materials Division  
Vermont Agency of Natural Resources  
103 South Main Street  
Waterbury, VT 05676

Gary Urich: (802) 241-3888

ATTACHMENT D

Mel Cheeks  
Waste Regulation Section  
(617) 223-5590

Kim E. Schweisberg  
Toxic Substances Control Section  
(617) 565-3165

Mark Spinale  
Municipal Evaluation Section  
(617) 565-3554

David Delaney  
Ground Water Management Section  
(617) 565-3615

Don Mackie  
Emergency Response Section  
(617) 860-4396

Dwight Peavy  
Toxics and Radiation Section  
(617) 565-3230

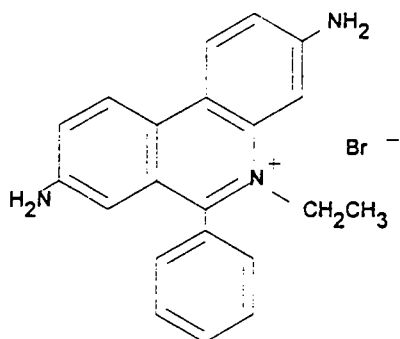
NR

PRODUCT #: E8751      NAME: ETHIDIUM BROMIDE  
MATERIAL SAFETY DATA SHEET, Valid 11/93 - 1/94  
Printed Tuesday, May 24, 1994 10:14AM

Sigma Chemical Co.  
P.O. Box 14508  
St. Louis, MO 63178  
Phone: 314-771-5765

Aldrich Chemical Co.  
1001 West St. Paul  
Milwaukee, WI 53233  
Phone: 414-273-3850

Fluka Chemical Corp.  
980 South Second St.  
Ronkonkoma, NY 11779  
Phone: 516-467-3535



E8751

SECTION 1. - - - - - CHEMICAL IDENTIFICATION- - - - -

PRODUCT #: E8751      NAME: ETHIDIUM BROMIDE

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

CAS #:1239-45-8  
MF: C21H20BR1N3

SYNONYMS

2,7-DIAMINO-10-ETHYL-9-PHENYLPHENANTHRIDINIUM BROMIDE \* 3,8-DIAMINO-5-ETHYL-6-PHENYLPHENANTHRIDINIUM BROMIDE \* 2,7-DIAMINO-9-PHENYL-10-ETHYLPHENANTHRIDINIUM BROMIDE \* 2,7-DIAMINO-9-PHENYLPHENANTHRIDINE ETHOBROMIDE \* DROMILAC \* ETHIDIUM BROMIDE \* HOMIDIUM BROMIDE \* RD 1572 \*

SECTION 3. - - - - - HAZARDS IDENTIFICATION - - - - -

LABEL PRECAUTIONARY STATEMENTS

TOXIC

MAY CAUSE HERITABLE GENETIC DAMAGE.

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE (SHOW THE LABEL WHERE POSSIBLE).

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

DO NOT BREATHE DUST.

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE

PROTECTION.

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.  
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.  
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.  
CALL A PHYSICIAN.  
WASH CONTAMINATED CLOTHING BEFORE REUSE.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA

WATER SPRAY.  
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.  
SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.  
AVOID RAISING DUST.  
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

CHEMICAL SAFETY GOGGLES.  
RUBBER GLOVES.  
NIOSH/MSHA-APPROVED RESPIRATOR.  
SAFETY SHOWER AND EYE BATH.  
USE ONLY IN A CHEMICAL FUME HOOD.  
DO NOT BREATHE DUST.  
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.  
WASH THOROUGHLY AFTER HANDLING.  
IRRITANT.  
MUTAGEN.  
KEEP TIGHTLY CLOSED.  
STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

APPEARANCE AND ODOR

DARK PURPLE TO MAROON POWDER  
MELTING POINT: 260 C TO 262 C (DEC)

SECTION 10. - - - - - STABILITY AND REACTIVITY- - - - -

INCOMPATIBILITIES

STRONG OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS

TOXIC FUMES OF:

CARBON MONOXIDE, CARBON DIOXIDE

NITROGEN OXIDES

HYDROGEN BROMIDE GAS

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN ABSORPTION.

CAUSES EYE AND SKIN IRRITATION.

MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER  
RESPIRATORY TRACT.

CHRONIC EFFECTS

MAY ALTER GENETIC MATERIAL.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND  
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

RTECS NO: SF7950000

PHENANTHRIDINIUM, 3,8-DIAMINO-5-ETHYL-6-PHENYL-, BROMIDE

TOXICITY DATA

SCU-MUS LD50:110 MG/KG

ATMPA2 46,285,52

TARGET ORGAN DATA

TUMORIGENIC (ACTIVE AS ANTI-CANCER AGENT)

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES  
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR  
COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A  
CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - TRANSPORT INFORMATION - - - - -

CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - REGULATORY INFORMATION - - - - -

REVIEWS, STANDARDS, AND REGULATIONS

NOHS 1974: HZD A1168; NIS 1; TNF 17; NOS 1; TNE 34

NOES 1983: HZD A1168; NIS 1; TNF 7; NOS 3; TNE 21

EPA GENETOX PROGRAM 1988, POSITIVE: IN VITRO MAMMALIAN NONHUMAN  
MICRONUCLEUS

EPA GENETOX PROGRAM 1988, POSITIVE: E COLI POLA WITHOUT S9; HISTIDINE  
REVERSION-AMES TEST

EPA GENETOX PROGRAM 1988, NEGATIVE: CELL TRANSFORM.-SA7/SHE; SPERM  
MORPHOLOGY-MOUSE

EPA GENETOX PROGRAM 1988, NEGATIVE: S CEREVISIAE GENE CONVERSION; S  
CEREVISIAE-HOMOZYGOSIS

EPA GENETOX PROGRAM 1988, NEGATIVE: S CEREVISIAE-REVERSION

EPA GENETOX PROGRAM 1988, INCONCLUSIVE: CYTOGENETICS-MALE GERM CELL

EPA GENETOX PROGRAM 1988, POSITIVE: CHO GENE MUTATION

SECTION 16. - - - - - OTHER INFORMATION - - - - -

PRODUCT #: E8751      NAME: ETHIDIUM BROMIDE  
MATERIAL SAFETY DATA SHEET, Valid 11/93 - 1/94  
Printed Tuesday, May 24, 1994 10:14AM

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THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO  
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OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR  
PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

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FLUKA CHEMIE AG

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# Schleicher & Schuell

May 6, 1994

Mel Cheeks  
USEPA, Region I  
Mail Code HPRCANI  
J. F. Kennedy Building  
Boston, MA 02203-2211

**RE: EPA REGULATIONS FOR ETHIDIUM BROMIDE (Homidium Bromide)**

Dear Mr. Cheeks:

A few days ago, we spoke on the telephone about EPA legislation/regulation concerning the disposal of ethidium bromide (EtBr).

EtBr (CAS# 1239-45-8; Merck Index # 4650) is commonly used by scientists in molecular biology research laboratories to stain double-stranded DNA fractionated in agarose electrophoresis gels. When intercalated into DNA, EtBr will fluoresce at 312 nm. It is most commonly used in a 0.5% solution in water or salt solutions. EtBr is a known mutagen as determined by the Ames test. Although some scientists will reuse EtBr-containing buffered solutions, primarily the solution is "decontaminated". The EtBr is disposed of as solid waste, and the buffered solution is disposed of as liquid waste. My interpretation is that EtBr is a mutagenic, toxic solid or liquid, hazardous, discarded chemical waste (40 CRF 261).

Our Company believes there is need to offer an effective and convenient way for scientists to decontaminate EtBr-containing solutions. This would be accomplished by filtering EtBr-containing buffer through an activated carbon filter, thereby concentrating the EtBr on the filter and disposing of the decontaminated solution down the drain.

What we need to know from the USEPA is the following:

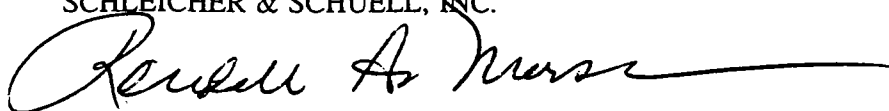
1. Is ethidium bromide controlled by the EPA?
2. Is it found on any lists of any sub-division of the EPA; such as: TSCA, SARA, or RCRA? Please supply me with this reference material.
3. What EPA regulations (by Number/Paragraph) govern EtBr?
4. What concentrations are permissible for drain disposal?
5. What distinctions are made for the disposal of EtBr as a solid waste (on a filter), or as a liquid waste (down the drain)?
6. What are the appropriate regulations for disposal as a liquid or as a solid?

Our Company objective is to responsibly communicate the appropriate governmental standards to our customers regarding the proper disposal of EtBr from their laboratories. Please send me any relevant information that will help us communicate this information.

I will be happy to discuss this matter with you in more detail. Please feel free to call me at 603-352-3810 x3290. We are anxious to proceed on this product development project, so we respectfully request that this matter be addressed directly, and that we receive a response within three weeks.

Thank you very much in advance.

Sincerely,  
SCHLEICHER & SCHUELL, INC.



Randall H. Morse  
Vice President  
New Business Development

h:ebh



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

June 24, 1994

Mr. Frank DeLorier  
Circle D Ranch  
RR2 Box 253 Lovers Lane  
Charlestown, NH 036003

OFFICE OF THE  
REGIONAL ADMINISTRATOR

Re: Municipal Solid Waste Incinerator

Dear Mr. DeLorier:

Thank you for your letter of February 19, 1994, to President Clinton about the Wheelabrator Claremont municipal solid waste incinerator in Claremont, New Hampshire in which you raised concerns about the removal of metals from incinerator ash and requested recent EPA inspection reports for this facility. Your letter has been delegated to the Environmental Protection Agency's New England Regional Office (EPA) for a response.

We hope to address your concerns by explaining more fully the federal/state relationship for regulation of facilities of this type. Recent regulatory developments are also summarized that will affect municipal solid waste incinerators in the near future.

Wheelabrator Claremont is currently subject to air permitting requirements of the Clean Air Act as well as solid waste permitting requirements of the Resource Conservation and Recovery Act (RCRA). The New Hampshire Department of Environmental Services (NH DES) has the primary responsibility for implementing both of these programs.

EPA has delegated authority to NH DES to administer and enforce the Clean Air Act through its State Implementation Plan. NH DES issued a permit to Wheelabrator Claremont on April 1, 1992, and inspected the facility on January 21, 1992, and May 12, 1993. The last EPA Clean Air Act inspection of the facility occurred on September 20, 1990. Past performance based on both state and Federal inspections have shown that the facility is in compliance and enforcement actions are not warranted. For further detail, an air compliance status report of the Wheelabrator facility is enclosed.

On May 2, 1994, the Supreme Court issued an opinion interpreting that RCRA does not exempt ash generated at resource recovery facilities burning household and nonhazardous commercial wastes from the hazardous waste requirements of Subtitle C of RCRA. This opinion requires EPA to revise its prior position that both types of ash were exempt from hazardous waste regulation.



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Therefore, facilities will now be required to test their ash to determine whether it exceeds regulatory levels defined for "hazardous" wastes. Ash generated from municipal facilities that exhibit characteristics of a hazardous waste will be subject to the hazardous waste requirements set forth in 40 CFR parts 260 to 299.

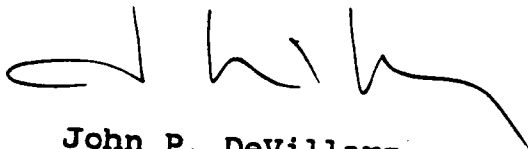
EPA is now in the process of approving New Hampshire's solid waste program. This state program issues solid waste permits and enforces regulations regarding the inspection and testing of incinerator ash for hazardous constituents. Currently, EPA is developing a strategy with all states for testing, inspecting and, if necessary, taking enforcement actions against incinerators who burn municipal waste.

As the regulatory and enforcement authority for both air and solid waste programs are delegated primarily to the state of New Hampshire, we recommend that you contact the NH DES at the address below for information relating to the most recent inspections for the Claremont facility.

Robert W. Varney, Commissioner  
New Hampshire Department of  
Environmental Services  
6 Hazen Drive  
P.O. Box 95  
Concord, NH 03301-6509  
Tel: (603) 271-3303

I appreciate your concerns and welcome the opportunity to respond to your letter to President Clinton. If you have further questions, please contact Mel Cheeks of the Maine/ New Hampshire/ Vermont RCRA Section at (617) 223-5590 or William Osbahr of the Stationary Source Compliance Section at (617) 565-3264.

Sincerely,



John P. DeVillars  
Regional Administrator

Enclosure

cc: Honorable Robert Varney, Commissioner  
New Hampshire Department of Environmental Services

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I

DATE: June 24, 1994

SUBJ: Executive Summary: Air Compliance Status of Wheelabrator,  
Claremont New Hampshire facility

FROM: William A. Osbahr, Environmental Engineer  
Stationary Source Compliance Section

TO: Files

I. Background

The purpose of this executive summary is to highlight the general air compliance status and enforcement activities surrounding Wheelabrator Claremont (WC) municipal solid waste incinerator. The need for this summary is required to answer an executive correspondence sent to Region 1 regarding WC. The executive correspondence has been referred to the Region since a constituent residing in New Hampshire has written to the office of the President of the United States. The constituent asked for assistance in looking into the compliance/enforcement activities surrounding this facility.

The constituent claims that EPA "has no intention of inspecting this facility and forcing it to function within the scope of the permits issued for its existence." I have performed an in depth review of WC's air compliance history in the EPA database, EPA files, and EPA inspection reports. I have also contacted the New Hampshire Department of Environmental Services (DES) to develop insight as to the source's compliance status regarding state regulations and its permit. After this review, I have determined that this source appears to be operating within compliance with its air permit, the State Implementation Plan (SIP), and the New Source Performance Standards (NSPS). I have also determined that both the DES and the state have monitored the compliance of this facility through annual inspections, quarterly emission reporting, and periodic stack testing.

The constituent has stated a desire to have WC separate metals from its ash as well as clean out metals from its ash landfill. It is important to note that there are no state or federally enforceable air regulations which require the action he has cited. It is my understanding that the Office of External Affairs has circulated this Executive Correspondence to other media in Region 1. Therefore, the issues covered in this summary will only cover applicable air pollution regulations.

## II. Description of Facility

TWC is a municipal waste combustor facility which generates 4.5 MW of electricity. The source consist of two mass burn incinerators. Each unit is capable of burning 100 tons/day of trash from 28 different towns and districts. A more complete and technical description can be found in the inspection reports and the permit contained in the Appendix A of this executive summary.

## IV. Description of Air Compliance/Enforcement Activities

WC is subject to regular inspections by the DES. In the last four years DES inspected the source on June 30, 1990, June 6, 1991, September 19, 1991, February 2, 1992 and May 5, 1993. All of these inspections showed the source to be in compliance with their permit, the applicable state regulations, and NSPS.

A stack test was required by the state in June 1993 in order to determine WC's compliance with the DES's Ambient Air limits. The test results and subsequent modelling showed the source to be in compliance with Ambient Air Levels.

EPA inspected this facility on September 20, 1990 by Engineer Donald Dahl. From his inspection and subsequent analysis he found the facility to be in compliance with its applicable air pollution requirements.

On June 10, 1994, I contacted DES regarding any potential non-compliance issues at the source. Jack Glenn, coordinator of enforcement, explained that DES pays close attention to this facility and its operations. He explained that the plant is operated in an efficient manner and plant personnel play close attention to compliance issues. DES has plans to inspect this facility early in the summer but at this time they do not have an exact.

Clearly it can be seen that there has been, and will continue to be, a substantial amount of air compliance/enforcement activities regarding this facility. Since reviewing this facility's compliance status, I have compiled the following documents contained in Appendix A:

WC's State issued Permit to Operate

EPA's December 17, 1990, Inspection Report

DES's January 21, and February 18, 1992, Inspection Report

DES's May 12, and May 17, 1993, Inspection Report

DES's March 4, 1994, Ambient Air Impact Analysis Modelling

V. Summary

This source undergoes an adequate amount of scrutiny from both EPA and DES in order to ensure its compliance with applicable air pollution regulations. DES has a grant agreement to maintain its enforcement program within EPA standards. DES administers an effective and efficient air enforcement program in New Hampshire. Its air inspectors are all licensed professional engineers. Past EPA/State program oversights show the high standards which the DES maintains in its diligent enforcement program. I feel that the constituents claims of lack of enforcement against WC do not apply to EPA or DES's air enforcement programs.

File

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I

DATE: December 17, 1990

SUBJ: Industrial Survey - Wheelabrator-Claremont,  
Claremont, New Hampshire

FROM: Donald Dahl, Environmental Engineer *DD*  
Control Technology and Compliance Section

TO: Files

I. Background Information

Date of Inspection: September 20, 1990

Weather Conditions: 60's partly cloudy

Source Contact: Chuck Conklin; Operations Supervisor  
(603) 542-8764

Mailing Address: RFD 2, Box 298  
Claremont NH 03743

Location: See attached map

II. Purpose of Inspection

Due to high visibility and potential harm, municipal waste combustors should be inspected on a frequent basis. In FY'90 I targeted both of the large municipal incinerators in New Hampshire for inspections. Wheelabrator Claremont is one of these incinerators.

III. Process Description

Wheelabrator operates two mass burn incinerators which generate 4.5 MW of electricity per hour. Each unit burns approximately 100 tons/day of trash from 28 different towns and districts.

a. Incinerator

Units Nos. 1 and 2 are identical in the practical sense. Each one consists of four zones. Zone No. 2 is usually the combustion zone. Sometimes the burn will take place in zone No. 3 if the moisture content of the trash is high.

The units are fed using front end loaders to keep a 15 foot deep pit filled. Some metals and batteries are removed by workers in the tipping room. However removal of metals and batteries is mainly accomplished at the town's transfer

areas.

After zone 2, the volatile gases are burned in zones 3 and 4. The combustion gases then pass through the superheater, evaporator, and economizer. Unit No. 1 was being retrofitted by adding additional sections to the economizer at the time of inspection.

To control odors combustion air is taken from the tipping floor and a slight (0.10-0.25 in) vacuum is maintained on the boiler.

Fly ash from superheater and evaporator sections is reinfected into the incinerator. Fly ash from economizer and baghouse is mixed with bottom ash and land filled in Newport, New Hampshire.

b. SO<sub>2</sub> control

To control SO<sub>2</sub> and HCL emissions, dry lime is injected counter currently into the exiting gas stream. A venturi is used to increase turbulence; thereby, enhancing the interface of acid gases and lime. New Hampshire has requested that Wheelabrator use 7.1 lbs lime/1000 lbs of steam produced. This amount was derived from initial stack testing. Unlike Concord, Claremont has not experienced lime clogging. The amount of lime is not measured on a continuous basis. A sonar reading is taken once per day to determine the amount used.

c. Particulate Control

To control particulate matter emissions, this facility utilizes a 3 module fabric filter. Each module contains 225 bags. The fabric filter was designed to operate on two modules according to Mr. Conklin. This allows the facility to continue operations when a module is taken off line for repairs. The gas enters module No. 3 first.

A pressure drop of 3-5 inch w.g. across the fabric filter is desired for proper removal. A stack gas temperature around 380 °F is desirable for heavy metal collection.

Leaks due to bag failure are detected by two methods: 1) increase opacity, 2) cool air on diaphragm. The diaphragms are manually checked once per shift. The bags are inspected for wear during every shutdown. Bag lifetime is around 1.5-2 years.

Bags are cleaned every 400 seconds using pulse air cleaning duration of 20 seconds.

4. Inspection

I arrived at the facility at 12:05. Zero percent opacity was noted.

As previously stated, Unit No. 1 was shutdown for modifications. Unit No. 2 was operating at full load (26,000 lbs/hr of steam). Operating data can be found in Table I. According to literature, this plant was operating within usual design specs (pressure drop of 3-5 inches w.g. across the baghouse, stack temperature of 380 °F, and excess oxygen at 6-10 %).

#### 5. Compliance

The Ard has issued two enforcement actions to Claremont. On May 4, 1989, this facility was cited for operating without a proper CO monitor. The CO monitor had failed relative accuracy tests on 5/28-6/6/87 and 2/15-2/19/88.

On May 17, 1990, unit No. 1 and unit No. 2 were both cited for exceeding CO limits in their permits.

#### Temporary Permit Nos. TP-C-52 and TP-C-53

On July 15, 1986, the ARD issued two Temporary Permits to SES Claremont for the construction of two MSW incinerators.

The permits contain limits on CO, NOx, SO<sub>2</sub>, opacity, TSP, HCL, dioxin, and furan. (See permits in file)

All of the above were tested during stack testing on 5/28 - 6/6/87 and 7/14-7/17/87. Source tested in compliance with all limits.

In addition to the stack testing, Claremont was required to continuously measure CO emissions. During my inspection the CO monitor was registering 15 ppm. This equates to less than 10% of the standard.

Opacity, limited to 20%, was showing 2% on the COM. A VE showed 0%.

#### NSPS Subpart E

This Subpart has a particulate limit which is less stringent (0.08 gr/dscf compared to 0.02 gr/dscf in its federally-enforceable permit).

#### 6. Conclusion

This facility appears to be well operated and has demonstrated compliance with its permit except for CO emissions during the past winter. Data now shows compliance; however, 1991 winter data will be the indicator if the modifications lowered CO emissions. CO emissions are always higher during the winter due to poorer fuel.

Table I  
Operating Data Unit No. 2

Steam Flow (lbs/hr)	26,000
Electricity Generated (MW)	1.6
Excess O <sub>2</sub>	8.5
Baghouse delta P (in. w.g.)	
Module 3	4.4
Module 2	4.0
Module 1	4.0
Furnace Temperature (°F)	1800-2000
Steam Pressure (psig)	600
Steam temperature at turbine inlet (°F)	706
CO (ppm)	15
Opacity (% - COM)	2.1
Baghouse Temperature (°F)	386



## Permit to Operate

Permit No: PO-C-363  
County: Sullivan  
Permit Fee: \$900

*Unit # 'PO-C-362  
is Identical*

This certifies that:  
Wheelabrator Claremont Company, L.P.  
has been granted a Permit to Operate for:  
Unit #2 Von Roll MSW Incinerator, Grissom Lane, Claremont, NH

a device which emits air pollutants into the ambient air as set forth in equipment registration forms (ARA 1-6), filed with this Division under the date of February 6, 1986 in accordance with RSA 25-C of the New Hampshire laws of 1979, (amended 1981). This permit is valid until March 31, 1995. Permit renewal is subject to Division requirements and must be accompanied by the appropriate permit renewal fee.

This permit is valid provided the device is operated in accordance with all the legally enforceable conditions specified in items 1-5 below:

1. The emissions of air pollutants are limited by the New Hampshire Code of Administrative Rules CHAPTERS Env-A 100-1300.
2. The maximum operating rate is limited to: See Attached Sheets.
3. The operating hours of the device are limited to: 24 hours/day, 365 days/yr.
4. The opacity of emissions may not exceed 20% based on three minute averages.
5. Other conditions: See attachment.  
The owner or operator of the device covered by this permit shall notify the Director 30 days prior to any proposed change to the physical structure or operation of the device covered by this permit which increases or decreases the amount of a specific air pollutant emitted by such device or which results in the emission of any additional air pollutant. The change shall not take place until a new permit application is submitted and acted upon by the Director pursuant to Env-A 600.

Any unavoidable malfunction, breakdown, or upset of the device, which results in emissions greater than those stipulated in this permit, must be reported to the Division within 8 working hours of the occurrence.

This permit (or a copy) should be appropriately displayed near the device for which it is issued.  
Concord, NH April 1, 1992

*[Signature]*  
Director, Air Resources Division

A. Facility Operation

1. All equipment, facilities, and systems installed as used to achieve compliance with the terms and conditions of this Permit to Operate shall at all times be maintained in good operating order and be operated as efficiently as possible so as to minimize air pollutant emissions.

B. Operating Limitations

1. Maximum charge rate is 9,583 lb/hour of MSW based upon type 2 waste and 4500 BTU/lb at a capacity of 43.1 MMBTU/hour. The MSW can be a mix of types 0, 1, 2, 3 and 6 wastes.
2. Maximum of 8760 hours per year at 8333 lb/hour of type 2 waste as defined above.
3. Steam rate is limited to a maximum of 27,500 lb/hour at 655°F and 605 psig or the maximum rate as established during emission compliance tests.
4. Maximum municipal solid waste throughput is 36,500 tons per year.
5. The incineration shall meet Good Engineering Practice and comply with the Division's "Dioxin Emission Control Policy Guideline for Incinerators and Resource Recovery Facilities" approved April 17, 1986 by the New Hampshire Air Resource Commission.
6. No toxic/hazardous wastes shall be burned that are subject to the Resource Conservation and Recovery Act (RCRA).
7. During bottom or fly ash removal/handling, no fugitive dust is to be allowed and all fires must be burned out or extinguished.
8. The flue gas bypass shall be used for emergency shut down when the following occur.
  - a. high temperature flue gas.
  - b. high pressure flue gas.

9. Operating limits and parameters shall be established in reference to SES Claremont L.P. correspondence dated June 20, 1986 "Compliance with the HCL Reduction Standard".
10. During incinerator startup the baghouse shall not be bypassed.
11. A surrogate thermocouple shall be located in the incinerator above the combustion zone to provide continuously recorded temperatures.
12. An auxilliary fuel burning system shall be utilized to maintain the temperatures in the combustion zone (Condition B 5).
13. Other operating conditions may be placed at a later date.

C. Emissions

1. The particulate emission rate is limited to 0.02 grains per dry standard cubic foot (DSCF) corrected to 12% carbon dioxide.
2. The sulfur dioxide (SO<sub>2</sub>) emission rate is limited to 26.5 pounds per hour.
3. The nitrogen oxides (NO<sub>x</sub>) emission rate is limited to 26.5 pounds per hour.
4. The carbon monoxide (CO) emission rate is limited to the following emission limitations:
  - a. Twelve (12) pounds per hour which is equivalent to the following stack gas concentration (ppmdv) corrected to 7% oxygen (3 hour rolling average):

<u>Steam Production (lb/hour)</u> <u>(3 hour rolling average)</u>	<u>CO (ppmdv at 7% O<sub>2</sub>)</u> <u>(3 hour rolling average)</u>
0-18,000	270
19,000	262
20,000	254
21,000	245
22,000	237
23,000	229
24,000	221
25,000	212
26,000	204
26,500	200

C. 4. (continued)

- b. One hundred (100) ppm<sub>dv</sub> corrected to 7% oxygen, 4 day rolling average, as specified in the "Dioxin Emission Control Policy", approved by the N.H. Air Resources Commission, 4/17/86.
- c. Four hundred (400) ppm<sub>dv</sub> corrected to 7% oxygen, 8 hour rolling average as specified in the "Dioxin Emission Control Policy".
- 5. The hydrogen chloride (HCL) emission rate is limited to 7.5 pounds per hour and the device shall comply with Env-A 1201.071.
- 6. The dioxin and furan emission rates are limited to  $3.4 \times 10^{-7}$  TCDD and  $4.75 \times 10^{-6}$  TCDF pounds per hour per unit. These emission rates may change if and when new emission and ambient limits are provided by USEPA or by others and adopted by the Division.
- 7. The opacity of the emissions shall not exceed 20% based on three minute averages.

D. Air Pollution Control Equipment

Wheelabrator Claremont Co. shall continuously operate and maintain the following air pollution controls to minimize emissions.

- 1. Each incinerator shall be equipped with a baghouse for the control of particulate matter.
- 2. Each incinerator shall be equipped with dry lime injection system for the control of HCL and acid gas emissions.
- 3. Each incinerator shall be equipped with a thermocouple system for the control of dioxin and furan emissions.

**E. Malfunction**

The Division shall be notified by telephone within 8 working hours following the failure of air pollution control equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable limit stated in Condition C. In addition, the Division shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under Condition C and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law of regulations which such malfunction may cause.

**F. Emission Tests**

Compliance stack testing shall be required by the Division as necessary to ensure that the emission limits set forth in this permit are not exceeded.

1. The Division shall be notified in writing at 30 days prior to emission test to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test.
2. For performance test purposes, sampling ports, platforms and access shall be provided by Wheelabrator Claremont Co. on the incinerator exhaust systems in accordance with 40 CFR 60.8(E).

**G. Continuous Emission Monitoring**

1. Wheelabrator Claremont Company shall maintain and operate the following continuous monitoring systems in the boiler and/or the exhaust stack:
  - A. A continuous emission monitoring/recording (CEM) system to measure stack opacity, O<sub>2</sub>, CO, and combustion temperatures. The CEM system shall conform to all the requirements in Env-A 802.09. The temperature system shall meet the Division's approval
  - B. A hydrogen chloride monitor/recording (CEM) system shall be installed at a later date when the Division determines when an instrument is available and certifiable.

G. Continuous Emission Monitoring (continued)

- C. NOX and SO2 monitor/recorders (CEM) shall be required if or when it becomes necessary for compliance.
2. Wheelabrator Claremont Company shall maintain a file for all measurements, including continuous monitoring systems performance evaluation; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by Env-A 802.09 and Env-A 802.10 in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurement, maintenance, reports and records.
3. Wheelabrator Claremont Company shall submit a written report of all excess emissions to the Division for every calendar quarter as specified in Env-A 802.09. In addition, lime usage data shall be reported and these data shall include the following:
  - A. Monthly refuse processed (tons).
  - B. Steam produced (pounds).
  - C. Lime used (tons).
  - D. Pounds of lime used per 1000 pounds of steam produced.
4. Opacity excess emissions shall be defined as any air pollutant for a period or periods aggregating more than three minutes in any one hour which exhibits 20% opacity or greater.
5. For emission limits set forth in Condition C2, C3, C4a, C5 and C6 a gaseous excess emission shall be defined as any three hour period during which the average emissions as measured by the continuous monitoring system exceed the specified limit.
6. Excess emissions indicated by the CEM system shall be considered violations of the applicable emission limit for the purposes of this permit.
- H. Prevention of Significant Deterioration (PSD)

The facility emissions of criteria pollutants shall not exceed 250 tons per year. If the emissions of any criteria pollutant (SO2, NOX, CO, HC and particulates) are greater than 250 ton per year PSD shall apply to the facility

Wheelabrator /Claremont Company, L.P.  
Unit #2 Von Roll Incinerator  
PO-C-363

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I. Stack Criteria

The minimum stack height will be 150 feet above ground level and the flue diameters shall be no greater than 2.6 feet.

AIR RESOURCES DIVISION	FROM	TO	INIT/DATE	COPY
<u>ENGINEERING/FIELD REPORT</u>	Mary Ann Ruel	Lunderville		
		Davis		
		Bodnarik		
		Wright		

DATE: February 25, 1992

PLANT/FACILITY: Wheelabrator Claremont

LOCATION: Claremont, NH

INSPECTION DATE: January 21, 1992 and February 18, 1992

INSPECTED BY: Mary Ann Ruel

CONTACTS: Jay Berry, Environmental Manager and  
Chuck Conklin, Operations Superintendent

I met with Jay Berry and Chuck Conklin to conduct a permit renewal compliance inspection at the Wheelabrator facility in Claremont, NH. Wheelabrator Claremont operates two identical Von Roll Municipal Solid Waste (MSW) Incinerators under PO-C-362 and PO-C-363. These permits expire March 31, 1992.

Each incinerator is rated at 115 tons per day based on Type 2 waste and 4500 BTU per lb at a capacity of 43.1 MMBTU per hour. The MSW can be a mix of Types 0, 1, 2, 3, and 6 wastes. Each incinerator is limited to 100 tons per day. Each incinerator is equipped with a baghouse for control of particulate emissions and a dry lime injection system for control of acid gases.

The inspection began at the tipping floor. No visible evidence of red bag waste, large metal or wood objects, or other non regulated waste was obvious. The storage capacity of the tipping floor is 1000 tons. A 2 day supply of 350-400 tons was on site.

Combustion air is drawn off the tipping floor to create a negative pressure. This process helps to alleviate the odor problems created in the tipping area.

Due to past carbon monoxide problems, combustion air was used to preheat the refuse. The operator by monitoring of the oxygen percentage, CO concentration and visual observation of the refuse determines whether preheat air is necessary. The reason for non-continual operation of the preheat process is due to the use of the steam generated from the refuse incineration. The steam therefore isn't generating power.

Wheelabrator Claremont  
trip report  
February 25, 1992  
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The inspection continued through the refuse trail. Unit #2 was down during the time of this inspection due to routine maintenance. Each unit is shut down once per quarter. Propane is used for start up and shut down and complies with condition B.12 of the permit. Unit #1 was fully operational. The refuse was relatively far down in the combustion zone, the reason was explained to be wetness in the trash. When compared to the operational data, this was verified. The operational data for Unit #1 is as follows:

steam rate	27,000	lb/hr	running at maximum, all other components backing down to keep control
boiler draft	-0.23	WC	furnace pressure
Combustion zone temp.	1749	F	based on CO limit
oxygen conc.	7	%	
overfire air pressure	8	inches	
baghouse temp inlet	393	F	delta T= 9 F
outlet	384	F	
baghouse pres. drop	4.5	inches	ave
Module	#1 3"	#2 3.9"	#3 4"
lime feed rate	30 - 40	tons/hr	The lime is blown in counter flow to the air before entering the baghouse by a dry lime injection using a screw/rotary feed.
CEM data for Unit #1 only			
steam flow	26,590	lb/hr	
opacity %	oxygen %		CO ppm corrected to 7.02 % oxygen
0.84	3 minute average 10.04		7.68
	3 hour average 9.77		7.03

Wheelabrator Claremont  
 ip report  
 February 25, 1992  
 page 3 of 5

opacity %	oxygen %	CO ppm corrected to 7.02
	8 hour average	
	9.68	10.52
	96 hour average	
	8.56	11.08

The CEM is a shared system for Unit #1 and Unit #2. Every 7 1/2 minutes it switches units. This type of system is good for cleaning and avoiding plugging of the lines.

As mentioned earlier, the percent oxygen being high is the result of wet trash. The CO value is also directly reflective of this phenomena.

The lime is blown into the gas stream in a counter current flow prior to the baghouse. The lime system is a dry injection by a screw/rotary feeder. The lime is mixed in with the fly ash and then combines with the bottom ash for removal.

This facility generates 4 1/2 MW of power. The annual amount of refuse incinerated in 1991 was 71,106.09 tons which is equivalent to 8533 hours per year. The annual emissions generated from this refuse are as follows. These values are calculated from past stack test emissions data.

	Unit #1		Unit #2	
	emission rate	tons/ year	emission rate	tons/ year
SO <sub>2</sub>	4.15	17.7	5.69	24.3
NO <sub>x</sub>	18.4	78.5	14.6	62.3
CO	2.29	9.77	2.02	8.6
HCL	1.47	6.27	2.0	8.5
% efficiency	95.2		94.56	
PM 10	0.943	4.02	0.345	1.5

A second inspection was conducted on February 18, 1992 to determine compliance of Unit #2. The operational data for Unit #2 is as follows:

Wheelabrator Claremont  
trip report  
February 25, 1992  
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steam rate 24,300 lb/hr

boiler draft -0.31 WC

furnace pressure

Combustion  
zone temp. gt 2000 F

out of range

oxygen conc. 10.01 %

same as CEM; was running at 8-9  
moments prior

overfire air  
pressure 6 and 2 inches

baghouse temp  
inlet 397 F  
outlet 371 F

delta T = 26 F

baghouse pres.  
drop 5.01 inches

Module #1 #2 #3  
4.4" 8" 5.1"

this could be due to a frozen  
line, the delta is reasonable

CEM data

steam flow 24,600 lb/hr

opacity oxygen  
% %

CO ppm  
corrected to 7.02 % oxygen

0.72 3 minute average

CO low on Unit #1 out of range

3 hour average  
10.5

5.16

8 hour average  
10.05

6.04

96 hour average  
9.76

9.27

Wheelabrator Claremont  
trip report  
February 25, 1992  
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There was a lot of burning in combustion zone 1, the fire was way back. The high temperature and high CO could be reflective of this phenomena. This phenomena could be caused by dry trash being burned and having wet trash added. Wet trash needs to have a longer residence time in zone 1 to dry and burn. The dry trash will burn more quickly and thus move thru faster.

Unit #1 had a lower chamber temperature of 1600 F and an Upper temp of 675 F. When compared to Unit #2, the lower temp was out of range (above 2000 F) and the upper temp was 958 F. Based on this information it doesn't seem unreasonable that the lower temp was out of range.

There was a study conducted on furnace temperature verification in February of 1988. This study will be reviewed to determine the lower chamber temperature of Unit 2. At this time the compliance status of this facility could not be determined.

Due to the permit CO limit being averaged on a 3-hour average, the respective steam rates will be adjusted to a 3-hour average. This condition will be reflected in the permits.

#### RECOMMENDED ACTION

The permits will be re-issued as is upon receipt of payment. The AFS and NHEIS will be updated. The study of furnace temperature will be found and reviewed.

0055f-14/MAR

DEPARTMENT OF ENVIRONMENTAL SERVICES  
AIR RESOURCES DIVISION  
Engineering Field Report  
June 15, 1993 [October 21, 1993]  
Wheelabrator  
Claremont, NH

C. Wright <i>CW 10/21/93</i>	A. Bodnarik <i>AB 10/21/93</i>	D. Davis <i>DD 10/21/93</i>	D. Lunderville <i>DL</i>
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I. Background Information :

Date of Inspection -----5-12-93 and 5-17-93  
Type of Inspection -----Compliance  
Inspected by -----Mary Ruel *MR*  
Weather -----Sunny  
Source Contact -----Ted Clark  
Opacity -----< 5%

II. Inspection :

On May 12, 1993, I met with Ted Clark to conduct a routine compliance inspection at Wheelabrator, Claremont. Ted is responsible for both the Wheelabrator Concord and Wheelabrator Claremont facilities. Chuck Conklin, who is plant superintendent of Claremont was unavailable on the day of the inspection. Ted and I inspected the control room and collected the following data.

	unit #1	unit #2
lower	1916 F	2016 F
upper	1254 F	1314 F
baghouse	4.2 psi	4.1 psi
steam	27,000 lbs/hr	27,000 lbs/hr

From the control room, Ted and I inspected the CEM monitor. I obtained a daily print out, instantaneous print out, corrected value print out and a calibration sheet. See attached sheets for the printouts.

From the CEM we inspected the refuse delivery area. The weather outside was sunny and 80 degrees F. Due to the warm weather, the smell of garbage lingered throughout the plant. The refuse delivery area appeared to be very full on both sides of the building.

At first analysis, the plant appears to be in compliance with its current operating conditions. A more thorough review of the data obtained will be conducted at a later time.

# SLUDGE DRYER

For all non flammable sludge produced by metal finishing, chemical processing or industrial waste treatment systems.



## Introduction

The WMI Sludge Dryer will reduce your operating costs and simplify compliance with the 1984 RCRA Act Amendments. Waste treatment has always stopped at the "Free Standing Solids" stage. Actually a Free Standing Solid is 70% to 80% water. For every ton of "hazardous" waste that you landfilled last year, up to 1600 pounds was pure water. Why pay "hazardous" waste disposal cost for water?

## System Benefits

- Cut RCRA disposal costs by 75%
- Operates on your available power - gas or electric
- Can operate without filter cake dumpsters
- State of the art mixers
- Sized to take a complete press load
- Pays for itself within months
- Delivery within 8 weeks of drawing approval
- Applications to fit largest or smallest needs

## Why WMI?

The realistic approach to sludge disposal is weight and volume reduction. Sludge disposal is the single most costly expense of your waste water treatment system. If your press produces 25% solids, you are land filling 75% water! WMI produces Sludge Cake Dryers that can reduce your sludge handling costs by 75%. Our units can be skid mounted and installed remote to your existing Waste Treatment System allowing standard waste cake carts to be utilized. A cart full of sludge cake can be dumped into the WMI dryer and then the cart returned to the sludge press. WMI can reduce labor costs and space requirements for sludge handling by installing the Dryer underneath the press.

## WATER MANAGEMENT, INCORPORATED

<b>WMI-Ohio</b> 2480 Broadway Ave. Cleveland, OH 44115 (218) 526-3090	<b>WMI-Arkansas</b> 2300 Hwy. 70 East Hot Springs, AR 71901 (501) 623-2221	<b>WMI-Georgia</b> 5304 Panola Ind. Blvd. Decatur, GA 30035 (404) 967-3248	<b>WMI-West</b> 3001 Redhill Ave. Esplanade I-107 Costa Mesa, CA 92626 (714) 641-2010
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
ONE CONGRESS STREET  
BOSTON, MASSACHUSETTS 02203-2211

APR 21 1994

Lawrence C. DiPietro, Sr., President  
C.G.A., Inc.  
110A Wardtown Road  
Freeport, ME 04032

Dear Mr. DiPietro:

This letter is in response to your inquiry dated February 25, 1994. In your letter you state that C.G.A., Inc. recycles spent circuit boards for the metal content, and would like to recycle the left over scrap fiberglass resin boards. You specifically requested a determination of the current recycling status of C.G.A., Inc. In your letter you also indicate a concern over claims made by unknown sources that C.G.A., Inc. does not recycle the scrap fiberglass resin-based circuit boards and is "furthering the processing of industrial byproducts". You requested EPA to provide some type of clarification that the scrap circuit board residuals are a recyclable product.

As a point of clarification, EPA only regulates owners and operators of facilities that store recyclable materials before they are recycled, but does not regulate the actual recycling process [See 40 C.F.R. § 261.6(c)(1)]. In October 2, 1991, EPA published a notice for public comment in the Federal Register (enclosed) on plans to develop recommendations to the Federal Trade Commission (FTC) on voluntary guidance for environmental claims promoting the use of recycled and recyclable materials. The FTC, not EPA, regulates persons that make environmental claims on labeling, advertising and all other forms of marketing. The final guidelines for the Use of Environmental Marketing Claims dated August 13, 1993 are enclosed for your review.

EPA has also contacted the State of Maine's Department of Environmental Protection (ME DEP) about this situation. The ME DEP has informed EPA that it has been actively involved in this matter and is currently trying to determine the status of your proposed recycling facility and the piles of scrap spent circuit board residuals stored on-site. The ME DEP indicated that C.G.A., Inc has submitted documents to the State which contained contradictory information concerning the proposed recycling process. The ME DEP also indicated that this site is in violation of both Maine's solid and hazardous waste regulations. C.G.A. did not make any reference in its February 25, 1994 letter to EPA about this on-going investigation by the ME DEP nor of the possibility of potential solid and hazardous waste violations at the property.



Recycled/Recyclable  
Printed with SoyCanola Ink on paper that  
contains at least 75% recycled fiber

EPA notes, based on information contained in your letter, that C.G.A. has disposed its circuit board residuals on-site in waste piles since 1974 in excess of fifteen thousand (15,000) metric tons. This activity was referred to as "Phase I" of the recycling process. This material is presently stored on the ground and has not been analyzed, to EPA's knowledge, to determine the presence of hazardous constituents or contaminants such as lead and polychlorinated biphenyls (PCBs) that EPA has found in similar types of circuit board wastes [See attached memorandum dated August 26, 1992 Regulatory Status of Printed Circuit Boards].

EPA highly recommends analytical testing of this stockpiled material to facilitate the ME DEP's investigation into this matter. C.G.A. stated in its letter that potential reuses of this material included the manufacturing of swimming pools, etc. We think C.G.A. would agree that the testing of these piles for leachable hazardous constituents or contaminants is a prudent action to take.

As previously stated above, 40 C.F.R. § 261.6(c)(1) states that owner or operators of recyclable materials before they are recycled are subject to Parts 262 and 263 of the federal hazardous waste regulations and the notification requirements under Section 3010 of the Resource Conservation and Recovery Act (RCRA). Subtitle C of RCRA establishes a program to identify those solid wastes which may be hazardous and imposes management standards to protect human health and the environment. If the printed circuit board residuals stored on your property exhibits one of the characteristics of a hazardous waste identified in Part 261, Subparts C or D it must be managed as a hazardous waste prior to recycling.

Ultimately, the completion of ME DEP's investigation into this matter will determine the status of your proposed recycling process and the regulatory status of the circuit board residuals currently stored at your site. The State of Maine's hazardous waste regulations have been determined equivalent to the federal rules by EPA. The State of Maine has received authorization from EPA to implement its regulations in lieu of the federal program.

EPA does not wish to impede the ME DEP's investigation of this matter. Therefore, your continued cooperation with the ME DEP to provide additional information on the proposed recycling process and analysis of the circuit board residuals should expedite this matter to a successful conclusion.

If you have any questions concerning this matter, please contact Ken Rota of the RCRA Support Section at (617) 573-5759.

Sincerely,

*Ira Leighton*

Ira Leighton, Chief  
CT Waste Management Branch

cc: Scott Whittier, Maine DEP



UNITED STATES ENVIRONMENTAL  
WASHINGTON, D.C.

OPERATION AGENCY  
2460

46 26 002

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Regulatory Status of Printed Circuit Boards

FROM: Sylvia K. Lowrance, Director  
Office of Solid Waste

TO: Waste Management Division Directors,  
Regions I-K

Printed electronic circuit boards are major components of personal computers in widespread use in the U.S. today. As updated computer equipment becomes available, the older (but still usable) equipment is often placed into surplus, or is reclaimed/reused. The old equipment may be disassembled and the usable parts salvaged. Parts may also be scrapped and processed for metal values due to their obsolescence, even though they are still usable.

After the printed circuit boards themselves are disassembled, recovering usable components, the boards are often shredded or otherwise processed, and/or burned as part of the reclamation process. Later, base metals (lead, copper) or precious metals (e.g., gold, silver, or platinum) can be reclaimed through additional processing.

The International Precious Metals Institute (IPMI) has written to EPA and requested a determination under RCRA Subtitle C for the status of used printed circuit boards. The regulatory status of unused circuit boards (considered commercial chemical products) and by-product wastes from circuit board production are not affected by this memorandum. The Agency is planning to study the area of used printed circuit boards in more depth; however, our interim interpretation is discussed below.

The EPA believes that based upon the way in which used printed circuit boards are originally generated, these materials most clearly meet the definition of spent materials (§ 261.1(c)(1)). However, we have further examined whether these boards can also be classified as scrap metal under § 261.1(c)(6). Scrap metal is defined based in large part on the physical appearance of a secondary material, dependent on the presence of metal, and includes secondary materials that would otherwise be spent materials or by-products.

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As a matter of policy, the Agency has decided that unprocessed, spent (i.e., used) printed circuit boards are subject to regulation as scrap metal for the purposes of § 261.6(a)(3)(iv), and are therefore exempt from RCRA Subtitle C regulation when recycled. The Agency has made this determination largely because 1) metals can be recovered from the pieces of metal parts that are an integral part of these circuit boards, and 2) unprocessed circuit boards are in a physical state similar to the type of recycled materials the Agency intended to be exempted by providing examples in the scrap metal definition (e.g., "metal parts . . . which when worn or superfluous can be recycled"). The physical state of the unprocessed spent circuit boards limits the dispersion of metal constituents during the handling and transport of the spent printed circuit boards similar to the materials defined as scrap metal in the regulatory language. (Note that this determination is limited to spent circuit boards and does not apply to other spent materials.)

After the boards are processed (including shredding, grinding, burning or smelting), the resulting material (e.g., shredded pieces, sweeps/ash, fluff, or baghouse dust) may no longer be similar to the materials that meet the definition of a scrap metal. The Agency believes that certain materials generated from the processing of spent printed circuit boards may be in a physical state which is inherently different from the more "traditional" scrap metal materials, the latter of which includes bars, turnings, rods, sheets, wire, bolts, etc. Spent circuit board processing, particularly those reclamation steps that do not involve simple physical processing, may generate materials in a form which allows the dispersion of hazardous constituents during subsequent handling. Therefore, some of these materials may not meet the definition of, nor the intent of, the scrap metal definition (analogous to the fluff generated by the shredding of scrap automobiles). Thus, at this point, the processed material may no longer be exempt from regulation as scrap metal, and could be subject to regulation as a spent material (e.g. shredded boards derived from spent circuit boards), a by-product (e.g. sweeps/ash), or a sludge (e.g. baghouse dust).

The processor must determine whether the processed material is a solid waste, and if so, whether it exhibits a characteristic of a hazardous waste, and manage the material accordingly (assuming the material no longer meets the definition of scrap metal). If the generator/processor determines that a material meets the regulatory definition of solid waste but believes the processed (i.e., partially reclaimed) material should be classified as a product rather than a solid waste, an application can be made to the Regional Administrator or authorized State regulatory agency for a case-by-case variance under section 260.30(c) of RCRA. In addition, if the processed material is a hazardous waste that contains economically significant amounts of recoverable precious metals then the materials would be subject to reduced regulations

under Part 266, Subpart F.

This determination is limited to circuit boards. For further information about this interpretation, please contact Allen Maples or Ross Elliott of the Regulatory Development Branch at (202) 260-8551.

cc: RCRA Enforcement Branch Chiefs, Regions I-X  
NEIC  
OWPE  
OE  
IPMI

# **federal register**

Wednesday  
October 2, 1991

49991

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## **Part IV**

### **Environmental Protection Agency**

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**Guidance for the Use of the Terms  
"Recycled" and "Recyclable" and the  
Recycling Emblem in Environmental  
Marketing Claims; Notice of Public  
Meeting**

**ENVIRONMENTAL PROTECTION AGENCY**

(EPA/OSW-FR-91-032; SWH-FRL-4018-3)

**Guidance for the Use of the Terms "Recycled" and "Recyclable" and the Recycling Emblem in Environmental Marketing Claims****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Notice of public meeting and request for comments.

**SUMMARY:** EPA plans to develop recommendations to the Federal Trade Commission on voluntary guidance for environmental claims promoting the use of recycled materials and recyclable materials. The Federal Trade Commission is considering such guidance in response to petitions from States and today's notice solicits comment on a number of options EPA is considering for the guidance. The notice also announces the time and location of a public meeting EPA will hold to hear oral comments from interested parties on the options outlined in this notice.

**DATES:** Comments on this notice must be received on or before December 31, 1991. The public meeting will be held on Wednesday, November 13, and Thursday, November 14, 1991 from 9:30 am to 4:30 pm at The Rosslyn Westpark Hotel, Arlington, VA. Requests to present oral testimony must be received on or before Monday, October 28, 1991. EPA requests that ten copies of the oral comments be submitted on or before Friday, November 8, 1991.

**ADDRESSES:** (1) Public Meeting—The Agency will hold a public meeting on Wednesday, November 13, and Thursday, November 14, 1991, to receive comments on the options and issues relating to the options. The meeting will consist of two days of testimony. Because of the limited amount of time available and the desire to hear a range of views, presenters will be grouped in appropriate panels and will be allotted a specified time for statements, which may be followed by questions from the panel. Groups with common perspectives on the questions raised by these options are urged to select a single representative.

Written requests to appear at the meeting should be submitted no later than Monday, October 28, 1991 to: Office of Solid Waste, Public Meeting Request/F-91-GPLP-FFFFF, OS-305, 401 M Street, SW., Washington, DC 20460. The notice of participation should contain the name, affiliation (if applicable), address, and telephone number of the participant and the individual presenter,

and a brief statement of the participant's interest in the matter, and the topic of presentation.

If the Agency determines that there will not be adequate time to hear from all those wishing to present comments, the Agency will select among those wishing to testify, in order to ensure that a range of viewpoints and interests is represented. As time allows, individuals may also sign up to present comments during registration time at the hearing.

The public meeting will be held at The Rosslyn Westpark Hotel, 1900 North Fort Myer Drive, Arlington, VA 22209 in the Rosslyn Ballroom.

(2) Written Comments—Written statements and additional information may be submitted at the public hearing for inclusion in the official record. Written comments of any length will be accepted. Commenters must send an original and two copies of their comments to: RCRA Docket Information Center, Office of Solid Waste (OS-305), U.S. Environmental Protection Agency Headquarters, 401 M Street SW., Washington, DC 20460. Comments must include the docket number F-91-GPLP-FFFFF. The public docket is located at EPA Headquarters, room M2427 and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. The public must make an appointment to review docket materials. Call (202) 260-9327 for appointments. Copies cost \$15/page.

**FOR FURTHER INFORMATION CONTACT:** For general information, contact the RCRA/Superfund Hotline, Office of Solid Waste, U.S. Environmental Protection Agency (800) 424-3346 or (703) 920-5810, local in the Washington, DC metropolitan area.

For information on specific aspects of this notice, contact William MacLeod, Office of Solid Waste (OS-301), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 260-1000. 4627 8518 Dine Arranged

**SUPPLEMENTARY INFORMATION:** Copies of the following documents are available for viewing only in the RCRA Docket room:

The Green Report: Findings and Preliminary Recommendations for Responsible Environmental Advertising, State Attorneys General Task Force.

The Green Report II: Recommendations for Responsible Environmental Advertising, State Attorneys General Task Force.

Recycling Emblem Regulations, State of Rhode Island and Providence Plantations Regulations.

6 NYCRR Part 368 Recycling Emblems, New York State Regulations.

Regional Labeling Standards and Labeling Resolution, the Northeast Recycling Council.

Petition for Federal Trade Commission Guides from National Food Processing Association and other Petitioners.

Petition for Federal Trade Commission Guides from the Cosmetic, Toiletry, and Fragrance Association and the Nonprescription Drug Manufacturers Association.

Open Remarks of F. Henry Habicht II, Deputy Administrator, U.S. Environmental Protection Agency before the Federal Trade Commission, Hearings on Environmental Labeling, July 17, 1991.

Workplan for the Interagency Task Force on Environmental Marketing Claims, U.S. Environmental Protection Agency, Federal Trade Commission, U.S. Office of Consumer Affairs, Description of Labeling Efforts, Draft EPA Report.

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**I. Introduction****A. Overview**

The American public is increasingly concerned about environmental issues.

and individuals are looking for ways to do their part to protect our nation's environment and resources. In the past few years, public understanding of the nature of environmental problems has become more sophisticated. Many people recognize that large environmental problems are created not only by the actions of large companies and organizations, but also by the seemingly small actions of millions of individuals, for example, the generation of municipal solid waste, or the generation of "greenhouse" gases that may contribute to global climate change.

Many individuals are responding by trying to lessen the impacts of their own behavior, by car-pooling to work, conserving water at home, and purchasing consumer products which in some way offer an environmental advantage: Energy-saving lighting fixtures and appliances, products which contain fewer hazardous constituents, or products containing recycled materials. Manufacturers and marketers are responding to the consumer demand for "environmentally oriented" products by attempting to make products which do not contribute to upper atmospheric ozone depletion, create less solid waste or fewer adverse impacts on water quality, etc. They are also advertising and otherwise highlighting both the real, and desired, environmental benefits of these products for consumers.

The Environmental Protection Agency (EPA) views the increased desire for "environmentally oriented" products as an opportunity to find effective non-regulatory solutions to difficult environmental problems which may in some cases be solved more efficiently in the marketplace than through government regulations. Environmentally informed consumers making purchasing decisions based upon accurate and reliable information about the environmental attributes of products would encourage manufacturers to produce goods which have fewer adverse environmental impacts.

To affect a shift toward more environmentally benign products three things must occur: First, manufacturers need to produce products which are better for the environment; second, consumers need to be provided accurate, reliable, and meaningful information concerning the environmental attributes of these products; and, third, consumers need to preferentially purchase these products. We are starting to see manufacturers making products with fewer adverse environmental impacts. In many cases, however, consumers are not being

provided reliable and meaningful information about the advantages of these products, partially because of the lack of national consensus on the meaning and use of environmental terms in advertising and labeling. Consumers cannot know how to interpret and use the information they receive until consumers, manufacturers, and government speak a common language. Our failure to speak the same language in environmental marketing is creating problems both for manufacturers who are producing and attempting to market environmentally oriented products, and consumers who are seeking to purchase them.

Some manufacturers who have made legitimate attempts to improve their products by reducing their environmental impacts are unsure how to promote the environmental benefits of their products. They are concerned about criticism and liability for false or misleading advertising if they advertise environmental benefits in the absence of clear and uniform standards or, conversely, they face a potential loss of market share if they do not advertise environmental benefits and their competitors do.

Meanwhile, because manufacturers are making claims based upon differing standards, consumers often do not know what the claims mean, and this creates some consumer confusion and suspicion of environmental claims. Environmental claims are a special class of claims because consumers typically lack the scientific expertise to assess the validity of the claims that marketers are making. The increasing numbers of environmental claims bombarding consumers with information on competing environmental impacts, e.g., "source reduced" or "recyclable" versus "biodegradable," compounds these problems. Also, some highly aggressive marketers may make confusing and even misleading environmental claims, further adding to consumer confusion.

Initial attempts to address this situation have come from State governments; for example, several States, including New York, California, and Rhode Island, have passed legislation or issued regulations which provide standard definitions or guidelines for the use of the terms "recycled" and "recyclable" (and other terms). While individual State action has been part of an important first step to help define and shape the issue, as well as begin the initial consensus building process between government, industry, and consumers, the definitions and guidelines developed at the State government level are not necessarily

consistent and compatible with each other. As more States adopt regulations or pass laws to address the issue of environmental marketing, national marketers or distributors may find themselves in a situation where they will either have to target advertising for each State, which could be prohibitively expensive, or will stop advertising the environmental benefits of their products altogether.

Recognizing the limitations of an uncoordinated State-by-State response to the issue, some State organizations have begun to address the issue of environmental marketing at national and regional levels. A task force comprised of the Attorneys General from eleven States has formulated guidance for environmental marketing, which are contained in the Green Report II—Guidance for Responsible Environmental Advertising. This report not only contains guidance for environmental marketing, but also calls upon the Federal government to adopt national standards for environmental marketing claims used in the labeling, packaging, and promotion of consumer products. At the regional level, the Northeast Recycling Council, an organization comprised of State environmental officials from ten Northeastern States, has developed consensus guidelines for the use of the terms "reusable," "recycled content" and "recyclable" in product labeling. These consensus guidelines could be adopted by all ten of the member States in an effort to achieve regional coordination.

If national consensus over the use of these terms is not reached in the near future, we face the danger of losing a valuable tool for educating the public and influencing the production and use of more environmentally oriented products. Consumers may come to distrust or ignore all environmental claims, and national manufacturers and marketers may become so hamstrung by conflicting State standards that they avoid making these claims completely.

#### *B. Federal Role*

The U.S. EPA, the U.S. Office of Consumer Affairs (USOCA), and the Federal Trade Commission (FTC) recognize the opportunity presented by environmental marketing for improving the environment as well as the need to avoid misleading or deceptive environmental claims. They also understand the need for Federal involvement to address this issue at the national level. These three agencies have joined to form a Federal Task Force to provide a coordinated and

cohesive national response to the issue of environmental labeling and marketing claims. The members of the Task Force will work together to help ensure that consumer, advertising, and environmental issues are addressed through a coordinated national effort.

The Task Force is intended to enhance and coordinate, rather than supersede, environmental marketing activities currently taking place in each individual agency. Environmental marketing claims may potentially be addressed by one of a combination of several approaches: FTC industry guides, FTC case-by-case enforcement, EPA Guidance for specific terms, and more general guidance, issued by EPA or jointly by the Task Force, that applies to a category of claims. The Task Force will coordinate agency efforts so the appropriate mix of approaches is used to address the commonly used or most problematic claims.

As an initial step to address a key subject in this area, EPA is developing guidance for two terms related to recycling of materials from solid waste: "Recycled" and "recyclable," and for the use of the recycling emblem. This is a topic of much consumer and business interest, and these terms are two of the most frequently used environmental claims.

The FTC held hearings on July 17 and 18, 1991, to gather information to assist them in determining whether they should develop industry guides for the use of environmental marketing claims. If FTC should decide to go forward with developing industry guides in the future, EPA will share the information we are gathering with them, which may serve them in the development of the industry guides. EPA stands ready to assist FTC in any way possible to ensure that the environmental policy needs discussed in this notice are addressed in an effective and coordinated way by the guides. If FTC should decide not to develop industry guides, EPA will publish the recommendations as its guidance to industry and consumers.

#### C. Purpose of Today's Notice

Today's notice solicits comment on options for guidance to be used by marketers in product labeling and advertising promoting the use of recycled materials and recyclable materials. EPA will hold a public meeting to hear oral comment from interested parties on the options outlined in this notice.

#### D. Goals and Objectives of EPA Voluntary Environmental Claims Guidance

EPA has two overriding goals in addressing "recycled content" and "recyclable" claims: We want to encourage the trends toward (1) the increased use of recycled materials in products and (2) the increased recovery of materials for recycling. These goals will be advanced by facilitating the communication between consumers and marketers as to which products contain recycled materials content and which products are recyclable. By doing this we will help to restore consumer confidence in environmental marketing claims. (We recognize that improved labeling practices need to be supplemented by strong educational programs to help the general public understand and actively participate in recycling.) We also want to insure that all companies making "recycled content" and "recyclable" claims operate on a level playing field: One company should not be able to gain a market advantage over another company by promoting its product as something the product is not. This will help to ensure that companies making legitimate environmental improvements to their products will benefit from the increased consumer demand for environmentally oriented products, fostering the desire on the part of marketers to provide consumers with more environmentally oriented products.

#### II. Definitions

The following definitions are used in the notice. These definitions are intended to serve as guidance to marketers and to help educate consumers. In formulating these definitions, EPA has reviewed statutory and regulatory definitions from the Resource Conservation and Recovery Act (RCRA). However, the definitions stated here may not parallel those found in RCRA. For example, whereas the RCRA definition for "post-consumer material" is applicable primarily to paper and paper products, EPA has broadened that definition for purposes of this guidance so that it is applicable in more situations. In choosing the definitions to include in the notice, we have recognized that many of the RCRA definitions apply to government procurement of materials with recycled content, and procurement policy issues might differ from the issues we are addressing in this notice.

The term "home scrap" means those scrap materials, virgin content of a material, or by-products generated from,

and commonly reused original manufacturing

The term "post-consumer" means those products generated by a business that have served their uses, and that have been or otherwise diverted from waste stream for the purpose of recycling.

The term "pre-consumer" means those materials any step in the product and that have been recycled otherwise diverted from waste stream for the purpose of recycling. It does not include those virgin content of a material products generated from reused within an original process.

The term "product" means commodities that are the end result of a manufacturing process. For the purpose of guidance, packaging is a definition.

The term "recycled material" means pre-consumer materials, consumer materials, and include home scrap.

The term "recyclables" means products or materials that recovered from or otherwise from the solid waste stream for the purpose of recycling.

The term "recycled content" means the portion of a material's weight that is composed of consumer and post-consumer materials.

The term "recycle" means the activities, including collection, separation, and processing of products or other materials recovered from or otherwise from the solid waste stream in the form of raw materials for the manufacture of new products or fuel for producing heat or combustion.

The term "recycling rate" means the percentage by weight of a material category that is recycled.

We are soliciting comment on the definitions listed in this notice, and will, if adopted, result in less confusion for manufacturers, marketers, and consumers concerning recycled and recyclable claims. We are soliciting comment on whether we should include other terms to help manufacturers and consumers understand the recycled and recyclable materials.

### III. Options for Guidance for Recycled Content Claims

The number of Americans served by recycling collection programs has grown rapidly in the past several years. Over 30 million Americans are now served by curbside recycling collection programs, and this number is expected to continue to grow in the coming years. The success of these recycling programs depends upon their ability to collect materials and market those materials. While starting up collection can be the most difficult part of initiating a recycling program, successfully marketing the collected materials will determine the long-term sustainability of the program. For example, some programs that were previously collecting old newspapers stopped when market supply of old newspapers exceeded demand, and prices for the collected materials fell. Many Americans are realizing that collecting materials for recycling is only one element of successful recycling; products containing recycled materials also need to be purchased in order to ensure healthy market demand for materials collected by municipal and other recycling programs. This understanding, as well as a general desire to take positive action for the environment, has helped increase consumer demand for products made with recycled content. Manufacturers are responding to consumer demand by making more products that use recycled materials, using increasing amounts of recycled materials in products, and developing new ways of utilizing recycled materials in products. Knowing that many consumers are seeking goods with recycled content, marketers are advertising their use of recycled content in more and more products in many different ways. EPA wants the trend towards using greater amounts of recycled materials to continue, and strongly believes that consumer demand for products with recycled content is essential for this to occur. The messages in product advertising concerning recycled content should supply the consumer with useful, accurate, and understandable information. Guidance to manufacturers, marketers, and consumers on such messages can help prevent consumers from becoming cynical and disillusioned about recycled content claims, and can help consumers identify products that use more recycled materials and create incentives for manufacturers to use more recycled materials. This guidance is intended to make "recycled content" claims more consistent and meaningful.

The two major concerns EPA has about "recycled content" claims are first, the types of materials which marketers are claiming as being "recycled," and second, the failure of some marketers to provide useful, accurate, and understandable information to consumers about the amount and sources of recycled material in products. The first problem is due in part to the lack of commonly accepted definitions for terms such as, "post-consumer materials," "recycled materials," etc. In the absence of commonly accepted definitions, some marketers have made dubious claims, for example, claiming that "home scrap" materials are "recycled," when, in fact, such "home scrap" materials are produced and reused within an original manufacturing process and never enter the waste stream.

In order to address this issue, EPA has included in this notice proposed definitions for the terms "recycled materials," "post-consumer materials," "pre-consumer materials," and others. These definitions can be used by marketers in their claims and to help educate consumers. The definitions we are considering are listed in the previous section.

The second potential problem with "recycled content" claims concerns statements that are vague, potentially misleading, and provide little information to consumers. Concerns have been expressed that broad statements on products such as "Made with recycled materials"; "Recycled Content;" or statements that use the "chasing arrows" recycling loop emblem and the term "Recycled," do not provide consumers with sufficient information for the statements to be meaningful. These statements could apply to products containing anywhere from 1% to 100% recycled content. If some consumers care about the use of recycled materials in a product, then it is a likely assumption that these consumers would also be concerned about the amount of recycled content and would generally prefer as much recycled content as feasible. To address these concerns, EPA is examining the following three options for recycled content claims guidance.

#### A. Option 1: Disclosure of Recycled Materials Content

In order to make statements concerning the use of recycled materials more meaningful, EPA is considering recommending that marketers who advertise the use of recycled materials in a product prominently and clearly state the percentage by weight of recycled materials in the product. For

example, an aluminum can manufacturer that uses 50% recycled materials by weight to produce an aluminum can could advertise the recycled materials by making a statement such as "Recycled Aluminum contains 50% recycled materials." A minimum threshold for recycled content would be set or recommended under this option.

This option meets two needs. First, the consumer will be provided with useful and accurate information. By placing the percentage of recycled materials on the product, the consumer will be informed of the use of recycled materials, and the relative amount of recycled materials in the product. Second, this will provide consumers with the opportunity to choose products containing higher amounts of recycled material, thereby potentially creating competitive pressures to increase the amount of recycled materials contained in products in order to meet consumer demand.

One disadvantage to this option is that it relies heavily upon consumer knowledge of and demand for goods produced with recycled materials. If consumers do not understand the meaning of the terms used or the recycled content percentage, then the information could have little effect on the amount of recycled materials used. EPA requests comment on this issue and any data concerning consumer understanding of these terms.

#### B. Option 2: Minimum Content Standards

EPA is also considering a recommendation that marketers should promote the recycled content of a product or packaging only if the product or packaging meets a specified minimum percentage of recycled content. With this option, EPA would recommend either (1) a generic minimum content standard for all products (e.g., all products should meet a 25% minimum recycled content standard before being promoted as containing recycled content), or (2) a series of standards specific to materials or product categories (e.g., aluminum beverage containers should meet a 50% standard, newsprint should meet a 30% standard). EPA would then recommend that marketers meet these standards before promoting the use of recycled materials.

This option has several advantages. If the standards were commonly adopted, it would provide consumers with the knowledge and assurance of a minimum threshold of recycled content when they see content claims. This option could increase the amount of recycled

materials used. If the minimum percentages were set sufficiently high that some manufacturers would need to increase the amount of recycled materials they put in products in order to meet the standards. The option would solve the major disadvantage of Option 1, because it does not rely as heavily on consumer knowledge of and demand for increased amounts of recycled materials use to determine recycled content levels, because these levels will be set by the Administrator.

EPA's Guidelines for Federal Procurement issued under section 8002 of RCRA provide recommended standards for government purchases of goods containing recovered materials. EPA could use these standards as a starting point for setting the standards under this option. (See, for example, 40 CFR part 250.) EPA is requesting comment on whether the "Procurement Guidelines" provide suitable minimum content standards for this guidance.

One disadvantage with this option is that it would not distinguish between products whose recycled content is barely above the standard and those products that are greatly exceeding the standard. Because marketers would not necessarily state the amount of recycled materials content, this option also would not provide consumers with information they could use to choose products with larger amounts of recycled materials content. This option would likely entail high standard setting costs to EPA, as well as the need for ongoing evaluation of the use of recycled materials in products, and periodic revision of the guidance in order to encourage greater use of recycled materials. Also, it is not clear that a commonly accepted, sound basis exists for setting content percentages across many products. Finally, industry could view the standard not only as the minimum level of recycled content, but also as the ceiling, resulting perhaps in less than desired recycled material use. This may occur because industries may have little incentive to go beyond the minimum standard.

#### *C. Option 3: Minimum Content Standards and Disclosure*

EPA is also considering recommending a combination of options 1 and 2 which would (1) discourage marketers from promoting the use of recycled materials content unless they meet or exceed a specified minimum content standard, and (2) state the percentage by weight of recycled materials in the product.

The advantage of this option is that consumers would be provided information concerning the percentage

of recycled materials used in a product, which would allow them to choose products with higher percentages of recycled material content, and they would be ensured a minimum threshold of recycled content. However, this option would have disadvantages similar to the previous option in regard to costs, the burden of ongoing evaluation, and the difficulty in establishing optimum minimum recycled content standards.

#### *D. EPA's Preferred Option*

EPA's preferred option for the use of "recycled content" claims is Option 1: Disclosure of Recycled Materials Content, whereby a marketer would prominently disclose the percentage recycled materials content as part of any "recycled content" claim.

Unlike the other two options which require EPA to establish standards, this option would offer low costs to government, would avoid the need for EPA to oversee development and implementation of minimum content standards, and would not set standards that could be viewed as a ceiling by industry or be considered as arbitrary by observers.

Marketers following this guidance would provide consumers with information on the percentage of recycled content in their products. Consumers can use this information as part of their purchasing decision, potentially creating competition among manufacturers to meet consumer demand for recycled content. EPA believes that many marketers could respond quickly to consumer demand, rapidly increasing their use of recycled materials.

#### *E. General Issues Relating to "Recycled Content" Claims*

In this section we will present two important issues which cut across all three of the options for guidance that EPA is considering. EPA is seeking comment on both of these critical issues. The first issue relates to the definitions of "recycled materials" and "recycled content." In the proposed definitions we have defined "recycled materials" as including both pre- and post-consumer materials. This approach was taken for three reasons. First, it is not clear whether consumers understand the difference between pre- and post-consumer materials. The broader, more inclusive definition may be simpler and thus more effective. Second, some pre-consumer wastes which are currently being disposed can be recovered. Efforts to recycle such materials through consumer marketing can help alleviate local disposal problems. Third, it is not

clear whether the distinction between pre- and post-consumer waste can be tracked efficiently by producers and brokers handling a variety of waste streams.

Other parties, however, have made the case that encouraging use of post-consumer materials is desirable, because post-consumer materials are relatively more difficult to collect, separate, and process than pre-consumer materials have been traditionally recycled more commonly. For these reasons, they argue that the recycling of post-consumer materials should be encouraged more aggressively than the recycling of pre-consumer materials, or, at the very least, the percentage of post-consumer material content should be specifically stated when communicating the use of recycled materials. Some examples of this position are the State of California's law which requires the use of 10% post-consumer material content before a claim of recycled content can be made, the recommendation of the ad-hoc Committee on Environmental Advertising of the National Association of Attorneys General that marketers not call pre-consumer materials "recycled," and the Northeast Recycling Council's recommendation that marketers separately label the percentages of pre and post-consumer materials along with any recycled content claim.

EPA would like to receive comment on whether defining "recycled content" to include both pre-consumer and post-consumer materials, or to include only post-consumer materials, will best promote increased consumer understanding regarding this issue. EPA would like to receive comment on whether a recommendation to state pre- and/or post-consumer materials content will lead to increased amounts of materials diverted from incinerators and landfills. Does information exist that demonstrates the effects on solid waste disposal of substituting post-consumer materials for pre-consumer materials? Will a preference for post-consumer materials result in the substitution of post-consumer materials for pre-consumer materials and not lead to a reduction in the total amount of materials destined for disposal? EPA also solicits comments on the feasibility and costs of differentiating and monitoring post-consumer materials content in various manufacturing processes.

The other issue for which EPA is seeking comment concerns the calculation of recycled content, another important issue which cuts across all three options. Several approaches to

calculating recycled content could be used, the difference between the approaches largely having to do with the amount of time over which the recycled materials use is counted. EPA's Procurement Guidelines for paper and paper products are very prescriptive in this regard, requiring that manufacturers meet the standards on a batch-by-batch basis, while EPA's Procurement Guideline for insulation products bases the calculation upon a monthly mass balance of recycled to virgin materials used. The State of New York calculates the percentage of recycled materials as being "that proportion of a package or product weight that is composed of recycled materials as demonstrated by an annual mass balance of all feedstocks and outputs of the manufacturing process." EPA is seeking comment as to what type of accounting system is most appropriate for consumer products claiming the use of recycled materials. Should we be recommending a batch-by-batch, monthly, or annual accounting? Are there other accounting issues that we should be considering?

#### IV. Options and Guidance for Recyclable Marketing Claims

As more and more Americans participate in recycling programs, the recyclability of products which they purchase is increasingly important. Many Americans want to participate in recycling programs and do their part to help reduce the amount of waste sent to landfills and waste combusters. In order to participate they need to know which materials are collected locally and how these materials need to be prepared for collection.

The most reliable source of information on what materials are collected locally is the local public or private organization sponsoring the program. These organizations, however, often do not have funds sufficient to allow them to mount a comprehensive public education campaign. As a result, consumers often look for information wherever they can find it, and some are looking to product labeling and advertising to learn whether a product can be recycled.

Unfortunately for consumers, recyclability claims are seldom of much assistance in helping them recycle in their own communities, because these claims are not typically based on community availability of recycling programs. Observers have noted that for many consumers, recyclability is determined by the availability of collection programs for the product in their community; however, marketers commonly make "recyclable" claims in order to inform the consumer that the

product, if collected, can technically be processed and used, without regard to whether an individual has reasonable access to programs that actually collect the product for use. Because of the mismatch between many consumers' understanding of "recyclable" claims and some marketers' use of "recyclable" claims, we face a situation where some consumers are losing confidence in the validity of "recyclable" claims and in environmental marketing claims in general.

Guidance can help marketers better communicate the recyclability of products to consumers, and can help avoid a loss of consumer confidence in the validity of "recyclable" claims. We believe that communication will be most facilitated by guidance that helps to qualify "recyclable" claims, so that such claims reflect the availability of collection and use programs for the product, and provide information that the consumer can use to recycle the product.

Guidance can also address the problem created by marketers making "recyclable" claims for products which are recycled at very low rates, creating a situation where companies that make commonly "recyclable" products compete with companies that do not do so. EPA supports the efforts of companies which have taken concrete and productive steps to improve the recyclability of their products by using materials that are commonly collected for recycling, eliminating materials incompatible with recycling processes, and supporting the development of recycling infrastructure. We would like to see companies who have made changes or who have supported recycling reap the benefits of their efforts through increased sales and profits in the marketplace. Ideally, guidance would facilitate fair competition between marketers that would increase the use of readily "recyclable" products.

The following sections outline the approaches EPA is considering in formulating guidance for the use of "recyclable" claims.

##### A. Option 1: Minimum Recycling Rate and Recycling Rate Disclosure

This option has two elements. EPA would recommend that marketers promote the recyclability of a product only when (1) the product is recycled at a minimum percentage nationally, and (2) the product prominently discloses the national recovery rate for the material or product.

The minimum recycling percentage rate would be set by the Administrator. The minimum recycling percentage rate

could be set either at a high level to aggressively promote recycling or at a lower level to provide a minimum threshold to prevent trivial recyclable claims by marketers of products that are not widely recycled. The minimum recycling percentage rate could either be set on a material-by-material basis (e.g., aluminum should meet a 30% standard) or a product-by-product basis (aluminum cans should meet a 50% standard). EPA is requesting comment on the most appropriate method for setting minimum recycling percentage rates. We are also requesting comment on criteria appropriate for setting a minimum recycling percentage rate.

For products that meet the minimum percentage, the recycling rate would be disclosed in product labeling and advertising in a statement along with the recyclable claim. For example, the statement could read: "Recyclable. Glass containers are recycled at a 20% rate nationally." EPA would like commenters to provide information concerning the availability of reliable, current national recycling rates for recycled materials and the feasibility of using this information on product labeling and advertising in a timely manner. Also, what role should EPA or others play in overseeing the determination and use of such rates?

This option would help to meet EPA's objectives of improving communications concerning environmental marketing claims. The option helps to ensure that marketers do not make misleading "recyclable" claims, by establishing a minimum threshold before such a claim could be made. It would also provide consumers with comparative information on national recycling rates which could be used as a basis for choosing products, and help foster competition between marketers to increase the use of highly recycled materials in products.

EPA acknowledges that unless the recycling rate threshold was set at a very high level, this option would not discourage marketers from labeling or advertising their products as recyclable in some communities where the product or material is not collected. Another drawback to this option, similar to that described in the "recycled" options, would be the difficulty in establishing a commonly accepted, sound basis for determining the appropriate recycling rate standard for any given material, and the high cost to the Agency of setting the standard.

##### B. Option 2: Qualified Claims

"Recyclable" claims are often made based upon differing definitions of

recycling. "Recycle" as EPA would define it in section II of this notice, means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from or otherwise diverted from the solid waste stream for use in the form of raw materials in the manufacture of new products other than fuel for producing heat or power by combustion. Therefore, in order for a material to be considered fully "recyclable," it must be collected, separated, processed and used. If marketers were to link "recyclable" claims with information on access to collection and use programs, the linkage could eliminate much of the confusion relating to recyclability claims.

With this option, EPA would recommend that marketers make "recyclability" claims: (1) That do not lead consumers to assume that the product is recyclable everywhere; and (2) that provide consumers with information that helps them recycle the material. "Recyclable" claims meeting these criteria are claims that EPA considers to be "qualified."

An example of a qualified claim could be: "This bottle can be recycled in communities where collection facilities for colored HDPE bottles exist. For more information contact your local recycling coordinator." Examples of qualified claims currently exist in the marketplace. For example, a label on a plastic bottle claims: "This bottle is made with PETE. It is the same plastic used to make soft drink bottles and is the most commonly recycled plastic. If your community has a recycling program that collects all products with a [SPI code 1] symbol, please recycle this container. To get more information on how to encourage plastic recycling, write us at the following address: [Address]." Qualified claims help marketers communicate with consumers in a manner that would lead consumers interested in recycling products to take constructive steps to do so. The qualified claims could also avoid the current situation where "recyclable" claims often seem to have little meaning to many consumers because the claims appear to be nothing more than hollow advertising.

Use of qualified claims under this option would not, however, limit the claims to those marketers whose products are recycled at high rates. These claims, therefore, could be used by marketers of products that are recycled at very low rates and in a limited number of locations in the country. We see this as the major drawback to this option.

EPA is seeking comment on a number of issues related to this option. First of all, are the criteria we have set for a "qualified" claim appropriate and sufficient to provide useful information to consumers? What additional criteria, if any, should EPA include? Second, would use of these criteria reduce the number of misleading claims? Would they encourage recovery of recyclable materials?

#### *C. Option 3: Qualified Claims and Disclosure of National Recycling Rate*

This option would consist of two recommendations: marketers would make "qualified" claims, as described in Option 2, and also prominently disclose the national recycling rate of the product or material for which the claim of recyclability is being made. For example, a glass bottle could make the claim: "The bottle recycled in communities where collection facilities for colored glass bottles exist. For more information contact your local recycling coordinator. Glass bottles are recycled at a 20% rate nationally."

This option has all of the advantages of the previous option. The additional disclosure of the national recycling rate is designed to address the major concern we have with the previous option: Differentiating the claims of products commonly recycled from the claims of products that are not commonly recycled. While any marketer could make a qualified claim of recyclability under this option, it will encourage marketers who are considering making claims for a product that is minimally recycled to think twice about whether they want to make a claim that reveals how little of their product is actually recycled.

Aside from the issues related to the "qualified" claims and the disclosure of national recycling rate that we discussed in the previous options, EPA is seeking comment on whether a combination of these two options is appropriate and would accomplish EPA's objectives of helping marketers communicate the recyclability of products to consumers, avoiding a loss of consumer confidence in the validity of "recyclable" claims, and assisting companies who have made changes or who have supported recycling reap the benefits of their efforts through increased sales and profits in the marketplace.

#### *D. Option 4: Minimum Recycling Rate, Qualified Claims, and Disclosure of National Recycling Rate*

This option is a combination of major elements of Options 1 and 3: First, EPA would establish a minimum recycling

rate as described in Option 1. This minimum would be a relatively low level. Marketers would be encouraged not to make claims of recyclability for any products that did not meet this minimal level of recycling. Second, marketers whose products meet this recycling rate would be encouraged to meet the conditions outlined in Option 3.

This option would have the advantages of the previous option plus it would set a minimum threshold that would prevent the most trivial claims of recyclability from being made.

One disadvantage to this option is the difficulty that EPA could have in defining meaningful criteria to set a minimum recycling rate. We are requesting comment on the appropriate criteria for determining a minimum recycling rate in the context of this option. We are also requesting comment on this option in general, and in particular whether the use of several elements in the claim could be confusing to consumers or difficult for marketers to apply.

#### *E. EPA's Preferred Option*

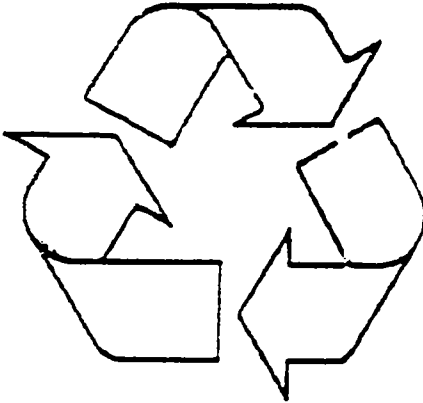
EPA's preferred option is Option 3: Qualified Claims and Disclosure of National Recycling Rate. We believe this option offers the best match between ease of implementation and meeting our objectives of improving communications of "recyclability," avoiding a loss of consumer confidence in the validity of "recyclable" claims, and assisting companies who have made changes or who have supported recycling reap the benefits of their efforts through increased sales and profits in the marketplace.

#### **V. General Guidance**

##### *A. Use of Recycling Emblem*

The familiar recycling emblem (See Figure 1) was developed in 1970 in a national contest conducted by a paper products manufacturer. After the contest the recycling emblem was placed in the public domain and is now commonly used by marketers to represent both recyclability and recycled content use. It is recognized by much of the public as relating generally to recycling. An immediately recognizable symbol like the recycling emblem can be a useful tool in drawing the attention of consumers to a product that contains recycled content or that is recyclable; however, more guidance on its proper use is needed in order to increase the effectiveness of its use and to ensure that consumers understand its meaning.

Figure 1: Recycling Emblem



The issue of when and how the recycling emblem should be used is being addressed by some States recommending that the emblem be used with recycled content and recyclable claims but the emblem be clearly identified to reflect whether it represents recycled content or recyclability. It is likely that more States will attempt to address this issue in the future. In order to provide a consistent national approach to the use of the recycling emblem, EPA is offering the following options for developing guidance. These options are offered as adjuncts to the guidance that EPA will develop for "recycled content" and "recyclable" claims. That is, EPA believes that the approach ultimately recommended for use of the recycling emblem should be used in conjunction with approaches ultimately recommended for the terms "recycled" and "recyclable," so that the emblem and surrounding message are viewed as a consistent claim providing necessary information.

#### 1. Option 1: Limit Use of Recycling Emblem to Certain Recycling Claims

The use of the recycling emblem, as expanded to environmental claims unrelated to the use of recycled content or recyclable materials. For example, some marketers have placed the recycling emblem on a package claiming "Environmentally friendly product and packaging," giving one the impression that the recycling emblem also signifies an overall "environmental goodness." While this practice is not yet widespread, we would not like to see it spread as it would dilute the meaning of the emblem. EPA is seeking comment on this position. Do commenters think that

this emblem should be used for other uses than signifying the use of recycled materials or recyclability?

Under this option, EPA would recommend that the use of the recycling emblem in product claims and advertising be restricted to claims involving the use of recycled content and recyclability. This option would limit the number of different messages that the recycling emblem would communicate to consumers, avoiding a situation where the emblem could be used for so many different environmental messages as to become virtually meaningless.

The recycling emblem is not used exclusively for environmental claims. For example, community recycling programs will often use the recycling emblem in brochures and advertising notifying the public of the time and location of recycling collection programs. Recycling collection companies use the recycling emblem on the sides of collection trucks. These uses of the recycling emblem are entirely appropriate, and we do not intend for the guidance to cover them.

Another use of the recycling emblem, albeit in a slightly modified form, is the Society of the Plastic Industry's rigid container plastic resin coding system. This coding system is meant to help differentiate between different resin types and encourage the recycling of plastic containers. Some form of the resin coding system is required by law in over 30 States. EPA does not intend that its guidance cover the use of the resin coding system, as long as the use of the coding is consistent with that of identification of resin and not an environmental claim. For example, a plastic bottle labeled with the code on the bottom of the bottle would not be covered under the guidance, but a plastic cup with the emblem displayed prominently on the side would be considered to be making an environmental claim, and the use of the emblem in that circumstance should be in accordance with EPA guidance.

EPA is seeking comment on whether other legitimate uses besides communicating "recycled content" and "recyclability" and those discussed above exist for the recycling emblem, what those uses are, and whether this option should be expanded to include those uses.

#### 2. Option 2: Use American Paper Institute Guidance

The American Paper Institute (API) distributes camera ready copy of the recycling emblem with the recommendation that manufacturers use

a version of the symbol consisting of solid arrows within a black circle to represent the use of recycled content (See Figure 2) and another version with the symbol appearing in outline form to signify recyclability. (See Figure 3.) With this option, EPA would recommend that marketers follow the API guidance and continue to use the two different versions of the recycling emblem.

Figure 2: API Recycled Content Emblem

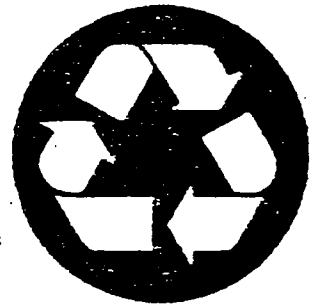
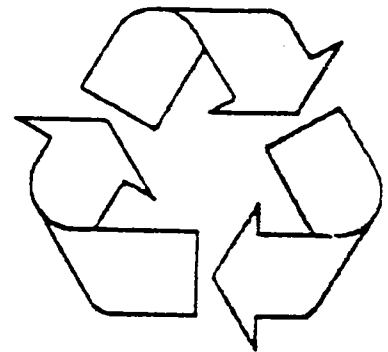


Figure 3: API Recyclable Emblem



An advantage to adopting this option is that the guidance has been developed and used for a number of years, and we would be promoting consistency by not changing guidance and adding to the confusion. We must note, however, because the API guidance promotes the use of two nearly identical emblems that the guidance might not offer a solution to increasing consumer understanding of the recycling emblem. Consumers might not be readily able to recognize that one version of the emblem represents the use of recycled materials while the other represents recyclability.

EPA is soliciting comment on whether adopting the API guidance would

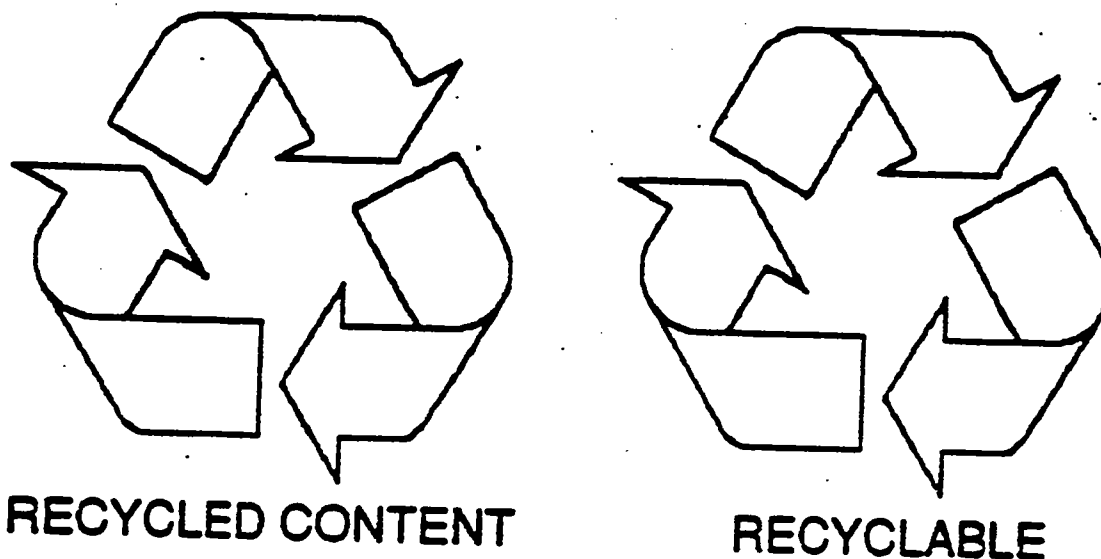
resolve the problems of consumer understanding of the meaning of the recycling emblem. EPA is also soliciting information that marketers might have concerning consumer understanding of the recycling emblem as currently used.

### 3. Option 3: Clearly Label the Recycling Emblem

Under this option, EPA would recommend that marketers clearly label the emblem with "recycled content" or "recyclable," depending on the claim

they are making. An example of this can be seen in Figure 4. This option is an attempt to address the concerns we discussed in the previous section concerning the ability of consumers to differentiate between the two different API emblems.

Figure 4: Clearly Labeled Recycling Emblems



EPA is soliciting comment on whether, in fact, this option would solve the problem of consumer differentiation of the two different claims. We are also seeking copies of guidance that organizations have developed to address this issue.

### 4. EPA's Preferred Options for the Use of the Recycling Emblem

EPA's currently preferred options for the use of the recycling emblem are a combination of Options 1 and 3. Our preference would be that marketers use the recycling emblem only for "recycled content" or "recyclable" claims, and that they clearly label the emblem as

pertaining to "recycled content" or "recyclable" claims.

This option will help to promote consumer understanding of the meaning of the recycling emblem by encouraging that the use of the recycling emblem be limited to recycling claims, and by helping to eliminate the confusion that consumers are facing in determining the difference between the "recycled content" and "recyclable" emblems.

### B. Separating Claims of Packaging and Product

The labeling and advertising practices of some marketers do not always differentiate between claims made about the packaging and the product

contained within the package. Because of this, consumers are not able to tell when recycled content claims refer to the packaging and when they refer to the product. EPA is considering recommending that marketers clearly differentiate between recycled content and the recyclability claims made about the product and the packaging in order to help reduce consumer confusion. We request comment on this issue as well.

Dated: September 22, 1991.

Don R. Clay,

Assistant Administrator, Office of Solid Waste and Emergency Response.

[FR Doc. 91-23709 Filed 10-1-91; 2:45 am]

BILLING CODE 4000-00-01

# REVISIONS TO MINIMUM ENROUTE IFR ALTITUDES & CHANGEOVER POINTS—AMENDMENT 371 EFFECTIVE DATE, AUGUST 20, 1992—Continued

From	To	MEA
§ 95.4330 VOR Federal Airway 330 is Amended to Read in Part		
Only, ID FIX _____	Jackson, WY VOR/DME	14000
**13100-MCA Jackson VOR/DME, W BND		
Dumas, WY VOR/DME _____	Rowley, WY FIX _____	**14000
**11000-MCA Rowley FIX, W BND **13500-MOCA		
§ 95.4332 VOR Federal Airway 332 is Amended to Read in Part		
Houston, ME VOR/DME _____	U.S. Canadian Border _____	2000
§ 95.4358 VOR Federal Airway 358 is Amended to Read in Part		
San Antonio, TX VORTAC _____	Guada, TX FIX _____	*4000
**2500-MOCA		
§ 95.4359 VOR Federal Airway 359 is Amended to Read in Part		
U.S. Mexican Border _____	Laredo, TX VORTAC _____	*3000
**2400-MOCA		
§ 95.4407 VOR Federal Airway 407 is Amended to Read in Part		
Jena, TX FIX _____	Jerry, TX FIX _____	*4000
**1300-MOCA		
Palacios, TX VORTAC _____	Humboldt, TX VORTAC _____	2500
Union, LA FIX _____	Shreveport, LA VORTAC _____	3000

# REVISIONS TO MINIMUM ENROUTE IFR ALTITUDES & CHANGEOVER POINTS—AMENDMENT 371 EFFECTIVE DATE, AUGUST 20, 1992—Continued

From	To	MEA
§ 95.4431 VOR Federal Airway 431 is Amended by Adding		
Seward Island, AK VORTAC _____	Lyric, AK FIX _____	**5000
**5000-MCA **5000-MOCA		
Lyric, AK FIX _____	Storka Island, AK VORTAC _____	5000
§ 95.4437 VOR Federal Airway 437 is Amended to Read in Part		
Jesolo, FL FIX _____	Stary, GA FIX _____	10000
**5000-MCA		
§ 95.4612 VOR Federal Airway 612 is Amended to Read in Part		
Proctor City, IN VORTAC _____	Holzer, IN FIX _____	2500
**2500-MCA		
§ 95.4628 VOR Federal Airway 628 is Amended to Read in Part		
Onyx, OH VORTAC _____	Chardon, OH VORTAC _____	3000
Chardon, OH VORTAC _____	Youngstown, OH VORTAC _____	3000
§ 95.4550 VOR Federal Airway 550 is Amended to Read in Part		
Couala, TX VORTAC _____	Mist, TX FIX _____	2500
Conza, TX FIX _____	Cecil, TX FIX _____	**3400
**2500-MCA **2000-MOCA		

# REVISIONS TO MINIMUM ENROUTE IFR ALTITUDES & CHANGEOVER POINTS—AMENDMENT 371 EFFECTIVE DATE, AUGUST 20, 1992—Continued

From	To	MEA	MAA
§ 95.4454 VOR Federal Airway 454 is Amended to Read in Part			
Junction, TX VORTAC _____	Stonewall, TX VORTAC _____	*4000	
**3000-MOCA			
§ 95.4588 VOR Federal Airway 588 is Amended to Read in Part			
San Antonio, TX VORTAC _____	Guada, TX FIX _____	*4000	
**2500-MOCA			
Guada, TX FIX _____	Stonewall, TX VORTAC _____	*4000	
Stonewall, TX VORTAC _____	Llano, TX VORTAC _____	*4000	
**2000-MOCA **1100-MOCA			
§ 95.7207 Jet Route No. 207 is Amended to Delete:			
MIAMI, FL VORTAC _____	Wahala, FL FIX _____	18000	45000
WAHAA, FL FIX _____	Savannah, GA VORTAC _____	24000	45000

## § 95.9003 VOR FEDERAL AIRWAYS CHANGEOVER POINTS

Airway Segment		Changeover points	
From	To	Distance	From
V-136 is Amended to Delete: Van Nuys, CA VOR/DME _____	Paradise, CA VORTAC _____	22	Van Nuys

[FR Doc. 92-19105 Filed 8-12-92 8:45 am]  
BILLING CODE 4910-13-08

## FEDERAL TRADE COMMISSION 16 CFR Part 250

### Guides for the Use of Environmental Marketing Claims

AGENCY: Federal Trade Commission.  
ACTION: Publication of final guides.

**SUMMARY:** The Federal Trade Commission has adopted guides for the use of environmental claims in marketing and advertising. The guides address the applicability of section 5 of the FTC Act to environmental advertising and labeling claims. Public hearings on these issues were held on July 17-18, 1991, along with a 90-day public comment period. In addition to the guides themselves, the Commission is publishing in this notice a summary of an environmental assessment of the guides, including a finding of no significant impact, concluding that an environmental impact statement is not required under applicable law.

EFFECTIVE DATE: July 28, 1992.

**ADDRESSES:** Copies of the environmental assessment are available from the Public Reference Branch, room 130, Federal Trade Commission, 5th Street and Pennsylvania Avenue, NW., Washington, DC 20580.

**FOR FURTHER INFORMATION CONTACT:** Mary Koelbel Engle (Attorney), (202) 325-3161.

**SUPPLEMENTARY INFORMATION:** On Friday, May 31, 1991, the Federal Trade Commission published in the Federal Register a request for public comment on issues concerning environmental marketing and advertising claims, and a notice that it would hold public hearings. 56 FR 24968, May 31, 1991. Public hearings on these issues were held on July 17-18, 1991, along with a 90-day public comment period. On August 2, 1991, the Commission published in the Federal Register a notice extending the comment period. 56 FR 37028, Aug. 2, 1991. The Commission has now adopted guides for the use of environmental claims in marketing and advertising. The guides address the applicability of

section 5 of the FTC Act to environmental advertising and labeling claims. In addition to the guides themselves, the Commission is publishing in this notice a summary of an environmental assessment of the guides, including a finding of no significant impact, concluding that an environmental impact statement is not required under applicable law.

### List of Subjects in 16 CFR Part 250

Advertising, Environmental claims. Labeling, and Trade practices.

For the reasons set forth in the preamble, 16 CFR ch. I is amended by adding part 250 to read as follows:

## PART 250—GUIDES FOR THE USE OF ENVIRONMENTAL MARKETING CLAIMS

- Sec.
- 250.1 Statement of purpose.
  - 250.2 Scope of guides.
  - 250.3 Structure of the guides.
  - 250.4 Review procedure.
  - 250.5 Interpretation and substantiation of environmental marketing claims.
  - 250.6 General principles.

Sec.  
2017 Environmental marketing claims.  
2018 Environmental Assessment.

Authority: 15 U.S.C. §§ 41-52.

§ 200.1 Statement of purpose.

These guides represent administrative interpretations of laws administered by the Federal Trade Commission for the guidance of the public in conducting its affairs in conformity with legal requirements. These guides specifically address the application of section 5 of the FTC Act (15 U.S.C. 45) to environmental advertising and marketing practices. They provide the basis for voluntary compliance with such laws by members of industry. Conduct inconsistent with the positions articulated in these guides may result in corrective action by the Commission under section 5 if, after investigation, the Commission has reason to believe that the behavior falls within the scope of conduct declared unlawful by the statute.

§ 200.2 Scope of Guides.

These guides apply to environmental claims included in labeling, advertising, promotional materials and all other forms of marketing, whether asserted directly or by implication, through words, symbols, emblems, logos, depictions, product brand names, or through any other means. The guides apply to any claim about the environmental attributes of a product or package in connection with the sales, offering for sale, or marketing of such product or package for personal, family or household use, or for commercial, institutional or industrial use. Because the guides are not legislative rules under section 18 of the FTC Act, they are not themselves enforceable regulations, nor do they have the force and effect of law. The guides themselves do not preempt regulation of other federal agencies or of state and local bodies governing the use of environmental marketing claims. Compliance with federal, state or local law and regulations concerning such claims, however, will not necessarily preclude Commission law enforcement action under section 5.

§ 200.3 Structure of the guides.

The guides are composed of general principles and specific guidance on the use of environmental claims. These general principles and specific guidance are followed by examples that generally address a single deception concern. A given claim may raise issues that are addressed under more than one example and in more than one section of the guides. In many of the examples, one or more options are presented for

qualifying a claim. These options are intended to provide a "safe harbor" for marketers who want certainty about how to make environmental claims.<sup>1</sup> They do not represent the only permissible approaches to qualifying a claim. The examples do not illustrate all possible acceptable claims or disclosures that would be permissible under section 5. In addition, some of the illustrative disclosures may be appropriate for use on labels but not in print or broadcast advertisements and vice versa. In some instances, the guides indicate within the example in what context or contexts a particular type of disclosure should be considered.

§ 200.4 Review procedure.

Three years after the date of adoption of these guides, the Commission will seek public comment on whether and how the guides need to be modified in light of ensuing developments. Parties may petition the Commission to alter or amend these guides in light of substantial new evidence regarding consumer interpretation of a claim or regarding substantiation of a claim. Following review of such a petition, the Commission will take such action as it deems appropriate.

§ 200.5 Interpretation and substantiation of environmental marketing claims.

Section 5 of the FTC Act makes unlawful deceptive acts and practices in or affecting commerce. The Commission's criteria for determining whether an express or implied claim has been made are enunciated in the Commission's Policy Statement on Deception.<sup>2</sup> In addition, any party making an express or implied claim that presents an objective assertion about the environmental attribute of a product or package must, at the time the claim is made, possess and rely upon a reasonable basis substantiating the claim. A reasonable basis consists of competent and reliable evidence. In the context of environmental marketing claims, such substantiation will often require competent and reliable scientific evidence. For any test, analysis, research, study or other evidence to be "competent and reliable" for purposes of these guides, it must be conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results. Further guidance on the

reasonable basis standard is set forth in the Commission's 1983 Policy Statement on the Advertising Substantiation Doctrine, 49 FR 30,999 (1984); appended to Thompson Medical Co., 104 F.T.C. 348 (1984). These guides, therefore, attempt to preview Commission policy in a relatively new context—that of environmental claims.

§ 200.6 General principles.

The following general principles apply to all environmental marketing claims, including, but not limited to, those described in § 200.7. In addition, § 200.7 contains specific guidance applicable to certain environmental marketing claims. Claims should comport with all relevant provisions of these guides, not simply the provision that seems most directly applicable.

(a) *Qualifications and Disclosures.* The Commission traditionally has held that in order to be effective, any qualifications or disclosures such as those described in these guides should be sufficiently clear and prominent to prevent deception. Clarity of language, relative type size and proximity to the claim being qualified, and an absence of contrary claims that could undercut effectiveness, will maximize the likelihood that the qualifications and disclosures are appropriately clear and prominent.

(b) *Distinction Between Benefits of Product and Package.* An environmental marketing claim should be presented in a way that makes clear whether the environmental attribute or benefit being asserted refers to the product, the product's packaging or to a portion or component of the product or packaging. In general, if the environmental attribute or benefit applies to all but minor, incidental components of a product or package, the claim need not be qualified to identify that fact. There may be exceptions to this general principle. For example, if an unqualified "recyclable" claim is made and the presence of the incidental component significantly limits the ability to recycle the product, then the claim would be deceptive.

*Example 1:* A box of aluminum foil is labeled with the claim "recyclable," without further elaboration. Unless the type of product, surrounding language, or other context of the phrase establishes whether the claim refers to the foil or the box, the claim is deceptive if any part of either the box or the foil, other than minor, incidental components, cannot be recycled.

*Example 2:* A soft drink bottle is labeled "recycled." The bottle is made entirely from recycled materials, but the bottle cap is not. Because reasonable consumers are likely to consider the bottle cap to be a minor, incidental component of the package, the

<sup>1</sup> *Cliffdale Associates, Inc.*, 103 F.T.C. 110, at 178, 179 n.7, n.8, appendix, reprinting letter dated Oct. 14, 1983, from the Commission to The Honorable John D. Dingell, Chairman, Committee on Energy and Commerce, U.S. House of Representatives (1984) ("Deception Statement").

claim is not deceptive. Similarly, it would not be deceptive to label a shopping bag "recycled" where the bag is made entirely of recycled material but the easily detachable handle, an incidental component, is not.

(c) *Overstatement of Environmental Attribute.* An environmental marketing claim should not be presented in a manner that overstates the environmental attribute or benefit, expressly or by implication. Marketers should avoid implications of significant environmental benefits if the benefit is in fact negligible.

**Example 1:** A package is labeled, "50% more recycled content than before." The manufacturer increased the recycled content of its package from 2 percent recycled material to 3 percent recycled material. Although the claim is technically true, it is likely to convey the false impression that the advertiser has increased significantly the use of recycled material.

**Example 2:** A trash bag is labeled "recyclable" without qualification. Because trash bags will ordinarily not be separated out from other trash at the landfill or incinerator for recycling, they are highly unlikely to be used again for any purpose. Even if the bag is technically capable of being recycled, the claim is deceptive since it asserts an environmental benefit where no significant or meaningful benefit exists.

**Example 3:** A paper grocery sack is labeled "reusable." The sack can be brought back to the store and reused for carrying groceries but will fall apart after two or three reuses, on average. Because reasonable consumers are unlikely to assume that a paper grocery sack is durable, the unqualified claim does not overstate the environmental benefit conveyed to consumers. The claim is not deceptive and does not need to be qualified to indicate the limited reuse of the sack.

(d) *Comparative Claims.* Environmental marketing claims that include a comparative statement should be presented in a manner that makes the basis for the comparison sufficiently clear to avoid consumer deception. In addition, the advertiser should be able to substantiate the comparison.

**Example 1:** An advertiser notes that its shampoo bottle contains "20% more recycled content." The claim in its context is ambiguous. Depending on contextual factors, it could be a comparison either to the advertiser's immediately preceding product or to a competitor's product. The advertiser should clarify the claim to make the basis for comparison clear, for example, by saying "20% more recycled content than our previous package." Otherwise, the advertiser should be prepared to substantiate whatever comparison is conveyed to reasonable consumers.

**Example 2:** An advertiser claims that "our plastic diaper liner has the most recycled content." The advertised diaper does have more recycled content, calculated as a percentage of weight, than any other on the market, although it is still well under 100% recycled. Provided the recycled content and the comparative difference between the

product and those of competitors are significant and provided the specific comparison can be substantiated, the claim is not deceptive.

**Example 3:** An ad claims that the advertiser's packaging creates "less waste than the leading national brand." The advertiser's source reduction was implemented sometime ago and is supported by a calculation comparing the relative solid waste contributions of the two packages. The advertiser should be able to substantiate that the comparison remains accurate.

#### § 250.7 Environmental marketing claims.

Guidance about the use of environmental marketing claims is set forth below. Each guide is followed by several examples that illustrate, but do not provide an exhaustive list of, claims that do and do not comport with the guides. In each case, the general principles set forth in § 250.5 should also be followed.<sup>3</sup>

(a) *General Environmental Benefit Claims.* It is deceptive to misrepresent, directly or by implication, that a product or package offers a general environmental benefit. Unqualified general claims of environmental benefit are difficult to interpret, and depending on their context, may convey a wide range of meanings to consumers. In many cases, such claims may convey that the product or package has specific and far-reaching environmental benefits. As explained in the Commission's Ad Substantiation Statement, every express and material implied claim that the general assertion conveys to reasonable consumers about an objective quality, feature or attribute of a product must be substantiated. Unless this substantiation duty can be met, broad environmental claims should either be avoided or qualified, as necessary, to prevent deception about the specific nature of the environmental benefit being asserted.

**Example 1:** A brand name like "Eco-Safe" would be deceptive if, in the context of the product so named, it leads consumers to believe that the product has environmental benefits which cannot be substantiated by the manufacturer. The claim would not be deceptive if "Eco-Safe" were followed by clear and prominent qualifying language limiting the safety representation to a particular product attribute for which it could be substantiated, and provided that no other deceptive implications were created by the context.

**Example 2:** A product wrapper is printed with the claim "Environmentally Friendly." Textual comments on the wrapper explain that the wrapper is "Environmentally

Friendly" because it was not chlorine bleached, a process that has been shown to create harmful substances.<sup>4</sup> The wrapper was, in fact, not bleached with chlorine. However, the production of the wrapper now creates and releases to the environment significant quantities of other harmful substances. Since consumers are likely to interpret the "Environmentally Friendly" claim in combination with the textual explanation, to mean that no significant harmful substances are currently released to the environment, the "Environmentally Friendly" claim would be deceptive.

**Example 3:** A pump spray product is labeled "environmentally safe." Most of the product's active ingredients consist of volatile organic compounds (VOCs) that may cause smog by contributing to ground-level ozone formation. The claim is deceptive because, absent further qualification, it is likely to convey to consumers that use of the product will not result in air pollution or other harm to the environment.

(b) *Degradable/Biodegradable/Photodegradable.* It is deceptive to misrepresent, directly or by implication, that a product or package is degradable, biodegradable or photodegradable. An unqualified claim that a product or package is degradable, biodegradable or photodegradable should be substantiated by competent and reliable scientific evidence that the entire product or package will completely break down and return to nature, i.e., decompose into elements found in nature within reasonable short period of time after customary disposal. Claims of degradability, biodegradability or photodegradability should be qualified to the extent necessary to avoid consumer deception about

(1) The product or package's ability to degrade in the environment where it is customarily disposed; and

(2) The rate and extent of degradation.

**Example 1:** A trash bag is marketed as "degradable" which no qualification or other disclosure. The marketer relies on soil burial tests to show that the product will decompose in the presence of water and oxygen. The trash bags are customarily disposed of in incineration facilities or at sanitary landfills that are managed in a way that inhibits degradation by minimizing moisture and oxygen. Degradation will be irrelevant for those trash bags that are incinerated and, for those disposed of in landfills, the marketer does not possess adequate substantiation that the bags will degrade in a reasonably short period of time in a landfill. The claim is therefore deceptive.

**Example 2:** A commercial agricultural plastic mulch film is advertised as "Photodegradable" and qualified with the phrase, "Will break down into small pieces if left uncovered in sunlight." The claim is supported by competent and reliable scientific evidence that the product will break down in a reasonably short period of time after being exposed to sunlight and into

<sup>3</sup> These guides do not address claims based on a "lifecycle" theory of environmental benefit. Such analyses are still in their infancy and thus the Commission lacks sufficient information on which to base guidance at this time.

sufficiently small pieces to become part of the soil. The qualified claim is not deceptive. Because the claim is qualified to indicate the limited extent of breakdown, the advertiser need not meet the elements for an unqualified biodegradable claim, i.e., that the product will not only break down, but also will decompose into elements found in nature.

**Example 1:** A soap or shampoo product is advertised as "biodegradable," with no qualification or other disclosure. The manufacturer has competent and reliable scientific evidence demonstrating that the product, which is customarily disposed of in sewage systems, will break down and decompose into elements found in nature in a short period of time. The claim is not deceptive.

(c) **Compostable.** It is deceptive to misrepresent directly or by implication, that a product or package is compostable. An unqualified claim that a product or package is compostable should be substantiated by competent and reliable scientific evidence that all the materials in the product or package will break down into, or otherwise become part of, usable compost (e.g., soil-conditioning material, mulch) in a safe and timely manner in an appropriate composting program or facility, or in a home compost pile or device. Claims of compostability should be qualified to the extent necessary to avoid consumer deception. An unqualified claim may be deceptive.

(1) If municipal composting facilities are not available to a substantial majority of consumers or communities where the package is sold;

(2) If the claim misleads consumers about the environmental benefit provided when the product is disposed of in a landfill; or

(3) If consumers misunderstand the claim to mean that the package can be safely composted in their home compost pile or device, when in fact it cannot.

**Example 1:** A manufacturer indicates that its unbleached coffee filter is compostable. The unqualified claim is not deceptive provided the manufacturer can substantiate that the filter can be converted safely to usable compost in a timely manner in a home compost pile or device, as well as in an appropriate composting program or facility.

**Example 2:** A lawn and leaf bag is labeled as "Compostable in California Municipal Yard Waste Composting Facilities." The bag contains toxic ingredients that are released into the compost material as the bag breaks down. The claim is deceptive if the presence of these toxic ingredients prevents the compost from being usable.

**Example 3:** A manufacturer indicates that its paper plate is suitable for home composting. If the manufacturer possesses substantiation for claiming that the paper plate can be converted safely to usable compost in a home compost pile or device, this claim is not deceptive even if no municipal composting facilities exist.

**Example 4:** A manufacturer makes an unqualified claim that its package is compostable. Although municipal composting facilities exist where the product is sold, the package will not break down into usable compost in a home compost pile or device. To avoid deception, the manufacturer should disclose that the package is not suitable for home composting.

**Example 5:** A nationally marketed lawn and leaf bag is labeled "compostable." Also printed on the bag is a disclosure that the bag is not designed for use in home compost piles. The bags are in fact composted in municipal yard waste composting programs in many communities around the country, but such programs are not available to a substantial majority of consumers where the bag is sold. The claim is deceptive since reasonable consumers living in areas not served by municipal yard waste programs may understand the reference to mean that composting facilities accepting the bags are available in their area. To avoid deception, the claim should be qualified to indicate the limited availability of such programs, for example, by stating, "Appropriate facilities may not exist in your area." Other examples of adequate qualification of the claim include providing the approximate percentage of communities or the population for which such programs are available.

**Example 6:** A manufacturer sells a disposable diaper that bears the legend, "This diaper can be composted where municipal solid waste composting facilities exist. There are currently (X number of) municipal solid waste composting facilities across the country." The claim is not deceptive, assuming that composting facilities are available as claimed and the manufacturer can substantiate that the diaper can be converted safely to usable compost in municipal solid waste composting facilities.

**Example 7:** A manufacturer markets yard waste bags only to consumers residing in particular geographic areas served by county yard waste composting programs. The bags meet specifications for these programs and are labeled, "Compostable Yard Waste Bag for County Composting Programs." The claim is not deceptive, because the bags are compostable where they are sold, no qualification is required to indicate the limited availability of composting facilities.

(d) **Recyclable.** It is deceptive to misrepresent directly or by implication, that a product or package is recyclable. A product or package should not be marketed as recyclable unless it can be collected, separated or otherwise recovered from the solid waste stream for use in the form of raw materials, in the manufacture or assembly of a new package or product. Unqualified claims of recyclability for a product or package may be made if the entire product or package, excluding minor incidental components, is recyclable. For products or packages that are made of both recyclable and non-recyclable components, the recyclable claim should be adequately qualified to avoid consumer deception about which

portions or components of the product or package are recyclable. Claims of recyclability should be qualified to the extent necessary to avoid consumer deception about any limited availability of recycling programs and collection sites. If an incidental component significantly limits the ability to recycle the product, the claim would be deceptive. A product or package that is made from recyclable material, but, because of its shape, size or some other attribute, is not accepted in recycling programs for such material, should not be marketed as recyclable.

**Example 1:** A packaged product is labeled with an unqualified claim, "recyclable." It is unclear from the type of product and other context whether the claim refers to the product or its package. The unqualified claim is likely to convey to reasonable consumers that all of both the product and its packaging that remain after normal use of the product, except for minor incidental components, can be recycled. Unless each such message can be substantiated, the claim should be qualified to indicate what portions are recyclable.

**Example 2:** A plastic package is labeled on the bottom with the Society of the Plastics Industry (SPI) code, consisting of a design of arrows in a triangular shape containing a number and abbreviation identifying the component plastic resin. Without more, the use of the SPI symbol (or similar industry codes) on the bottom of the package, or in a similarly inconspicuous location, does not constitute a claim of recyclability.

**Example 3:** A container can be burned in incinerator facilities to produce heat and power. It cannot, however, be recycled into new products or packaging. Any claim that the container is recyclable would be deceptive.

**Example 4:** A nationally marketed bottle bears the unqualified statement that it is "recyclable." Collection sites for recycling the material in question are not available to a substantial majority of consumers or communities, although collection sites are established in a significant percentage of communities or available to a significant percentage of the population. The unqualified claim is deceptive since, unless evidence shows otherwise, reasonable consumers living in communities not served by programs may conclude that recycling programs for the material are available in their area. To avoid deception, the claim should be qualified to indicate the limited availability of programs, for example, by stating, "Check to see if recycling facilities exist in your area." Other examples of adequate qualifications of the claim include providing the approximate percentage of communities or the population to whom programs are available.

**Example 5:** A soda bottle is marketed nationally and labeled, "Recyclable where facilities exist." Recycling programs for material of this type and size are available in a significant percentage of communities or to a significant percentage of the population, but are not available to a substantial majority of

consumers. The claim is deceptive since, unless evidence shows otherwise, reasonable consumers living in communities not served by programs may understand this phrase to mean that programs are available in their area. To avoid deception, the claim should be further qualified to indicate the limited availability of programs, for example, by using any of the approaches set forth in Example 4 above.

**Example 4:** A plastic detergent bottle is marketed as follows: "Recyclable in the few communities with facilities for colored HDPE bottles." Collection sites for recycling the container have been established in a half-dozen major metropolitan areas. This disclosure illustrates one approach to qualifying a claim adequately to prevent deception about the limited availability of recycling programs where collection facilities are not established in a significant percentage of communities or available to a significant percentage of the population. Other examples of adequate qualification of the claim include providing the number of communities with programs, or the percentage of communities or the population to which programs are available.

**Example 5:** A label claims that the package "includes some recyclable material." The package is composed of four layers of different materials, bonded together. One of the layers is made from the recyclable material, but the others are not. While programs for recycling this type of material are available to a substantial majority of consumers, only a few of those programs have the capability to separate out the recyclable layer. Even though it is technologically possible to separate the layers, the claim is not adequately qualified to avoid consumer deception. An appropriately qualified claim would be, "includes material recyclable in the few communities that collect multi-layer products." Other examples of adequate qualification of the claim include providing the number of communities with programs, or the percentage of communities or the population to which programs are available.

**Example 6:** A product is marketed as having a "recyclable" container. The product is distributed and advertised only in Missouri. Collection sites for recycling the container are available to a substantial majority of Missouri residents, but are not yet available nationally. Because programs are generally available where the product is marketed, the unqualified claim does not deceive consumers about the limited availability of recycling programs.

**(e) Recycled Content.** A recycled content claim may be made only for materials that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer). To the extent the source of recycled content includes pre-consumer material, the manufacturer or advertiser must have substantiation for concluding that the pre-consumer material would otherwise have entered the solid waste stream, in asserting a recycled content claim.

distinctions may be made between pre-consumer and post-consumer materials. Where such distinctions are asserted, any express or implied claim about the specific pre-consumer or post-consumer content of a product or package must be substantiated. It is deceptive to misrepresent, directly or by implication, that a product or package is made of recycled material. Unqualified claims of recycled content may be made only if the entire product or package, excluding minor, incidental components, is made from recycled material. For products or packages that are only partially made of recycled material, a recycled claim should be adequately qualified to avoid consumer deception about the amount, by weight, of recycled content in the finished product or package.

**Example 1:** A manufacturer routinely collects spilled raw material and scraps from trimming finished products. After a minimal amount of reprocessing, the manufacturer combines the spills and scraps with virgin material for use in further production of the same product. A claim that the product contains recycled material is deceptive since the spills and scraps to which the claim refers are normally reused by industry within the original manufacturing process, and would not normally have entered the waste stream.

**Example 2:** A manufacturer purchases material from a firm that collects discarded material from other manufacturers and resells it. All of the material was diverted from the solid waste stream and is not normally reused by industry within the original manufacturing process. The manufacturer includes the weight of this material in its calculations of the recycled content of its products. A claim of recycled content based on this calculation is not deceptive because, absent the purchase and reuse of this material, it would have entered the waste stream.

**Example 3:** A greeting card is composed 20% by weight of paper collected from consumers after use of a paper product, and 20% by weight of paper that was generated after completion of the paper-making process, diverted from the solid waste stream, and otherwise would not normally have been reused in the original manufacturing process. The marketer of the card may claim either that the product "contains 50% recycled material," or may identify the specific pre-consumer and/or post-consumer content by stating, for example, that the product "contains 50% total recycled material, 30% of which is post-consumer material."

**Example 4:** A package with 20% recycled content by weight is labeled as containing "20% recycled paper." Some of the recycled content was composed of material collected from consumers after use of the original product. The rest was composed of overrun newspaper stock never sold to customers. The claim is not deceptive.

**Example 5:** A product in a multi-component package, such as a paperboard box with a shrink-wrapped plastic cover, indicates that it has recycled packaging. The paperboard box is made entirely of recycled material, but

the plastic cover is not. The claim is deceptive since, without qualification, it suggests that both components are recycled. A claim limited to the paperboard box would not be deceptive.

**Example 6:** A package is made from layers of foil, plastic, and paper laminated together, although the layers are undistinguishable to consumers. The label claims that one of the three layers of this package is made of recycled plastic. The plastic layer is made entirely of recycled plastic. The claim is not deceptive provided the recycled plastic layer constitutes a significant component of the entire package.

**Example 7:** A paper product is labeled as containing "100% recycled fiber." The claim is not deceptive if the advertiser can substantiate the conclusion that 100% by weight of the fiber in the finished product is recycled.

**Example 8:** A frozen dinner is marketed in a package composed of a cardboard box over a plastic tray. The package bears the legend, "Package made from 30% recycled material." Each packaging component amounts to one-half the weight of the total package. The box is 20% recycled content by weight, while the plastic tray is 40% recycled content by weight. The claim is not deceptive, since the average amount of recycled material is 30%.

**Example 9:** A paper greeting card is labeled as containing 50% by weight recycled content. The seller purchases paper stock from several sources and the amount of recycled material in the stock provided by each source varies. Because the 50% figure is based on the annual weighted average of recycled material purchased from the sources after accounting for fiber loss during the production process, the claim is permissible.

**(f) Source Reduction.** It is deceptive to misrepresent, directly or by implication, that a product or package has been reduced or is lower in weight, volume or toxicity. Source reduction claims should be qualified to the extent necessary to avoid consumer deception about the amount of the source reduction and about the basis for any comparison asserted.

**Example 1:** An ad claims that solid waste created by disposal of the advertiser's packaging is "now 10% less than our previous package." The claim is not deceptive if the advertiser has substantiation that shows that disposal of the current package contributes 10% less waste by weight or volume to the solid waste stream when compared with the immediately preceding version of the package.

**Example 2:** An advertiser notes that disposal of its product generates "10% less waste." The claim is ambiguous. Depending on contextual factors, it could be a comparison either to the immediately preceding product or to a competitor's product. The "10% less waste" reference is deceptive unless the seller clarifies which comparison is intended and substantiates that comparison or substantiates both possible interpretations of the claim.

(g) *Refillable*. It is deceptive to misrepresent, directly or by implication, that a package is refillable. An unqualified refillable claim should not be asserted unless a system is provided for:

(1) The collection and return of the package for refill; or

(2) The later refill of the package by consumers with product subsequently sold in another package.

A package should not be marketed with an unqualified refillable claim if it is up to the consumer to find new ways to refill the package.

**Example 1:** A container is labeled "refillable x times." The manufacturer has the capability to refill returned containers and can show that the container will withstand being refilled at least x times. The manufacturer, however, has established no collection program. The unqualified claim is deceptive because there is no means for collection and return of the container to the manufacturer for refill.

**Example 2:** A bottle of fabric softener states that it is in a "handy refillable container." The manufacturer also sells a large-sized container that indicates that the consumer is expected to use it to refill the smaller container. The manufacturer sells the large-sized container in the same market areas where it sells the small container. The claim is not deceptive because there is a means for consumers to refill the smaller container from larger containers of the same product.

(h) *Ozone Safe and Ozone Friendly*. It is deceptive to misrepresent, directly or by implication, that a product is safe for or "friendly" to the ozone layer. A claim that a product does not harm the ozone layer is deceptive if the product contains an ozone-depleting substance.

**Example 1:** A product is labeled "ozone friendly." The claim is deceptive if the product contains any ozone-depleting substance, including those substances listed as Class I or Class II chemicals in title VI of the Clean Air Act Amendments of 1990, Public Law No. 101-549, or others subsequently designated by EPA as ozone-depleting substances. Class I chemicals currently listed in title VI are chlorofluorocarbons (CFCs), halons, carbon tetrachloride and 1,1,1-trichloroethane. Class II chemicals currently listed in title VI are hydrochlorofluorocarbons (HCFCs).

**Example 2:** The seller of an aerosol product makes an unqualified claim that its product "Contains no CFCs." Although the product does not contain CFCs, it does contain HCFC-22, another ozone depleting ingredient. Because the claim "Contains no CFCs" may imply to reasonable consumers that the product does not harm the ozone layer, the claim is deceptive.

**Example 3:** A product is labeled "This product is 55% less damaging to the ozone layer than past formulations that contained CFCs." The manufacturer has substituted HCFCs for CFC-12, and can substantiate that

this substitution will result in 55% less ozone depletion. The qualified comparative claim is not likely to be deceptive.

#### § 260.3 Environmental assessment.

National Environmental Policy Act. In accordance with § 1.83 of the FTC's Procedures and Rules of Practice<sup>3</sup> and § 1501.3 of the Council on Environmental Quality's regulations for implementing the procedural provisions of National Environmental Policy Act, 42 U.S.C. 4321 et seq. (1969),<sup>4</sup> the Commission has prepared an environmental assessment for purposes of providing sufficient evidence and analysis to determine whether issuing the Guides for the Use of Environmental Marketing Claims requires preparation of an environmental impact statement or a finding of no significant impact. After careful study, the Commission concludes that issuance of the Guides will not have a significant impact on the environment and that any such impact "would be so uncertain that

environmental analysis would be based on speculation."<sup>5</sup> An environmental impact statement is therefore not required. This conclusion is based on the findings in the environmental assessment that issuance of the guides would have no quantifiable environmental impact because the guides are voluntary in nature, do not preempt inconsistent state laws, are based on the FTC's deception policy, and, when used in conjunction with the Commission's policy of case-by-case enforcement, are intended to aid compliance with section 5(a) of the FTC Act as that Act applies to environmental marketing claims. Furthermore, the guides are neither motivated by nor intended to influence environmental policy decisions. The guides also do not impose standards on manufacturing or waste disposal methods. Consumer behavior as a result of the issuance of guides may change but any such change cannot be quantified, or even reasonably estimated, since those decisions would be influenced by many other variables, in addition to advertising claims. Industry response to the guides, beyond modification of environmental marketing claims, is also impossible to predict or quantify. The alternatives to Commission guides described in the environmental assessment, both within and without the Commission, would also have, at most, only an indirect and highly speculative impact on the environment.

<sup>3</sup> 16 CFR 1.83 (revised as of January 1, 1991).  
<sup>4</sup> 40 CFR 1501.3 (1991).  
<sup>5</sup> 16 CFR 1.83(e).

By direction of the Commission,  
 Commissioner Azcuenaga dissenting.  
 Donald S. Clark,  
 Secretary.

#### DISSENTING STATEMENT OF COMMISSIONER MARY L. AZCUEAGA CONCERNING ISSUANCE OF COMMISSION GUIDES ON ENVIRONMENTAL MARKETING CLAIMS

Today, the Commission issues guides on environmental marketing claims. The guides should prove useful to the business and law enforcement communities and to consumers, that is, to all those who make, analyze or rely on environmental claims in the advertising and marketing of goods and services. In an area that seems always to prove more difficult than initial impressions suggest, the Commission should be commended for producing a clear, careful and balanced document.

It has been my pleasure to work with my colleagues and Commission staff in this important and difficult endeavor and with the government agencies and other concerned groups and individuals who have participated so generously and constructively in this process. With regret, I nevertheless find I must dissent.

Basic to the exercise of the responsibility of my office is the obligation to act within the authority conferred on that office and, as I understand that obligation, it is not satisfied by forecasting that a challenge is unlikely or by deferring to the courts to decide on review whether the exercise lies within the bounds of the authority, but rather is my obligation to decide in the first instance and without regard to the prevailing political climate in which that decision will be received. As I read the law, the Commission has no authority to issue these guides, as written, without first employing the rulemaking procedures of section 18(b)(1) of the FTC Act, which it has not done.

Section 18(a)(1) of the FTC Act, 15 U.S.C. 57a(a)(1), provides that the Commission may prescribe:

- (A) interpretative rules and general statements of policy with respect to unfair or deceptive acts or practices . . . and
- (B) rules which define with specificity acts or practices which are unfair or deceptive acts or practices . . .

Section 18(b)(1) directs that "[w]hen prescribing a rule under subsection (a)(1)(B), the Commission is to proceed in accordance with the notice and comment requirements of section 553 of the Administrative Procedure Act and shall also follow the more extensive procedures set forth in section 18 that often are referred to as 'Magnuson-Moss rulemaking.'"

As the guides expressly state, the majority of the Commission does not view its guides as having the force and effect of law but as explanations of existing statutory terms and obligations. Under the Administrative Procedure Act, 5 U.S.C. 553, and under section 18 of the FTC Act, therefore, the Commission apparently would categorize its guides as "interpretive" (or "interpretative") rules or policy statements rather than "legislative" rules or "rules which define with specificity

deceptive acts or practices." I cannot agree.

By stating definitively, for example, that a particular act "is deceptive" or that particular conduct "would be deceptive," or that under specified circumstances, firms "must" or "should" act in a particular way, language that appears throughout the document, I believe that the document has "defined with specificity" a deceptive act or practice as set forth in section 18(a)(1)(B). Since the enactment of the Magnuson-Moss Act in 1975, the Commission has been empowered to take such an action only if it first adheres to Magnuson-Moss rulemaking procedures.

If the Commission in issuing its guides were relying on a body of past precedent, I might be persuaded that my colleagues were correct in their assessment, and that the decisive "guidance" in the document simply explicates existing Commission case law and policy. In issuing its Deception Statement in 1983, for example, the Commission reviewed decided cases to synthesize principles, but that is not the case here. The Commission's case law on environmental claims consists almost entirely of consent agreements and orders issued without adjudicative records or admissions of liability. These agreements and orders may convey to the public some sense of what the Commission is likely to do in other similar situations, but they are not binding precedent.

Were I entirely alone in my concern over the need to distinguish between interpretive and legislative rules in issuing some form of guidance on environmental claims, I might be inclined to accede to the position of the majority. Again, this is not the case. Although the courts, particularly in the District of Columbia Circuit, have not instructed agencies unambiguously on how they should distinguish interpretive and legislative rules, recent decisions suggest that my concern is not without validity. At the least, they reflect judicial concern that agencies attend to this question with care in reaching their regulatory decisions and judicial unwillingness blindly to acquiesce in agencies' characterizations of their actions. In short, saying that these are guides and not rules does not make it so.

Even in the presence of express language disavowing agency intent to bind either itself or the public, courts in this circuit have considered whether allegedly interpretive rules are sufficiently mandatory and definitive to render them legislative in nature. See *Community Nutrition Institute v. Young*, 813 F.2d 943, 948 (D.C. Cir. 1987) (noting that it is appropriate to "give some, albeit not overwhelming, deference to an agency's characterization of its statement" and refusing to sustain FDA rules because the agency failed to follow the appropriate rulemaking process); *Arrow Air, Inc. v. Dole*, 784 F.2d 1118, 1122 (D.C. Cir. 1986) (listing agency intent as only one among other factors differentiating interpretive and legislative rules); *General Motors Corp. v. Ruckelshaus*, 742 F.2d 1507, 1505 (D.C. Cir.

1984) (en banc), cert. denied, 471 U.S. 1074 (1985) (upholding agency's interpretation but finding agency's own label relevant but not dispositive).

The likelihood, in whatever degree, that what the Commission calls guides are in fact rules under section 18(a)(1)(B) could easily have been avoided without diminishing the basic guidance the Commission seeks to offer. The Horizontal Merger Guidelines recently issued by the Commission and the Department of Justice, for example, refrain from definitive conclusions about what does or does not violate the law in various ways, one of which is by using the qualifier "likely." For example, in discussing the significance of post-merger market concentration measured by the Herfindahl-Hirschman Index ("HHI"), the Merger Guidelines say, "Where the post-merger HHI exceeds 1800, it will be presumed that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power or facilitate its exercise." 1992 CCH Trade Cas. ¶ 13,104 at 20,573-4 (emphasis added).

A similar approach could be used here. Instead of saying that a particular claim "is" or "is not" deceptive, the environmental guides could have said that a particular claim "is likely" or "is unlikely" to be deceptive. Although adding the qualifiers "likely" or "unlikely" sounds more tentative, if that language were used throughout the document, the basic message of the guides, which is to indicate the Commission's likely response in various hypothetical situations, would remain. If the Commission prefers the more definitive language because indeed it wants to be definitive about what is or is not

\* Although, as already noted, the law of the circuit is not settled, there is a serious possibility, and in my opinion likelihood, that the Court of Appeals for the District of Columbia Circuit, at least, would find that portions, if not all, of the guides just issued are legislative rules rather than interpretive rules or policy statements. Compare the *Fertilizer Institute v. EPA*, 935 F.2d 1303, 1307-08 (D.C. Cir. 1991), quoting *General Motors Corp. v. Ruckelshaus*, *supra*, and *Citizens To Save Spencer County v. EPA*, 400 F.2d 844, 273 and n. 153 (D.C. Cir. 1969) (distinction between interpretive and legislative rules depends on whether document "simply states what the administrative agency thinks the statute means, and only 'reminds' affected parties of existing duties" or demonstrates that "the agency intends to create new law, rights or duties," with *Alaska v. DOT*, 366 F.2d 411, 440-47 (D.C. Cir. 1969), and *Community Nutrition Institute v. Young*, *supra* at 947-48. (distinction depends on several factors including use of mandatory language, inclusion of exception process, practical application and limitations placed on agency discretion).

\* Magnuson-Moss rulemaking procedures do not apply to antitrust rules, but the notice and comment rulemaking requirements in the Administrative Procedure Act ("APA") apply and presumably would have precluded the Commission and the Department from issuing the merger guidelines had they purported to bind the government or the public by requiring or prescribing particular conduct without first providing for public notice and comment. When it recently issued revisions to the so-called Prod Meyer Guides (Guides for Advertising Allowances and Other Merchandising Payments and Services, 35 FR 31 651 (Aug. 17, 1970)), under the antitrust laws, the Commission employed the appropriate APA rulemaking procedures.

deceptive, then it seems to me that the Commission run squarely into the problem that it is in fact issuing rules rather than guides and confess some puzzlement about whether the Commission intends to be definitive (and issue rules) or to indicate what it is likely to do (and issue guides), but even more than that, I regret that the Commission has not seen fit to make this single change, which would have enabled me to join in making this unanimous document.

Second, I differ from the Commission in its decision not to place the guides on the public record for a short period of time to enable the public to comment on them. Although we have sought to obtain accurate information and to consider the issues thoroughly, it is conceivable, nevertheless, that someone outside the agency might offer useful observations and suggestions for improvement. The Commission has obtained comment on the merits of issuing guidance and on the issues that such guides should address, but it has not provided to those affected by the guides an opportunity to assess the economic benefits and costs of the actual provisions or to call to our attention provisions that may cause unintended effects. A short, appropriately focused comment period on the guides could have coincided with the public comment period on the Environmental Assessment that is required under the National Environmental Policy Act of 1969, 42 U.S.C. 4321, as amended.

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BILLING CODE 6750-01-8

## COMMODITY FUTURES TRADING COMMISSION

### 17 CFR Parts 30 and 32

Offer and Sale of Foreign Exchange-Traded Options, and Foreign Exchange-Traded Futures Contracts Based on Foreign Stock Indexes and Foreign Government Debt, to Persons Located Outside the United States

AGENCY: Commodity Futures Trading Commission.

ACTION: Final order.

**SUMMARY:** Pursuant to its authority under sections 2(a)(1)(B), 4(b) and 4(c)(b) of the Commodity Exchange Act ("CEA" or "Act") and rules 32.11 and 30.2(a), and its determination that granting relief would not be inconsistent with the Act or the public interest, the Commodity Futures Trading Commission ("Commission") is providing relief to permit:

(1) Futures commission merchants ("FCMs") to solicit and accept orders and funds for foreign exchange-traded

\* Sections 2(a)(1)(B), 4(b) and 4(c)(b) of U.S.C. 32.

\* 17 CFR 32.11 and 30.2(a) (1992).

\* Guides and trade practice rules issued before the enactment of section 18 and before the judicial decisions discussed below contain similarly defective language.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MA 02203-2211

DATE: April 19, 1994

SUBJ: Region I Draft Administrative Procedures for Addressing Future Land Use Assumptions at Facilities under RCRA Corrective Action Prior to Final Remedy Selection

FROM: Frank Ciavattieri, Acting Director  
Waste Management Division

TO: RCRA Staff  
RCRA Section Chiefs  
WMD Branch Chiefs  
RCRA ORC Attorneys

The purpose of this memo is to present the Region I administrative procedures for making future land use assumptions at facilities subject to RCRA Corrective Action prior to selection of a final remedy. Present and future land use assumptions are used in assessing baseline risks and in establishing Media Protection Standards for a facility. This memo replaces previous memos regarding future land use for facilities under RCRA Corrective Action. This memo is considered draft in light of ongoing consideration of future land use assumptions at the national level.

The following documents were relied upon in preparing this memo:

1. a letter dated February 25, 1993, Re: "Future Use Scenarios at the Engelhard Corporation Site" prepared by Andrea Simpson;
2. a letter dated October 14, 1993, Re: "Remington Arms Park Corrective Action .. Future Use Consideration" prepared by Deborah McKie;
3. Corrective Action for Solid Waste Management Units at Hazardous Waste Management Facilities, Proposed Rule (Subpart S), 55 Fed. Reg. 30796.

Traditionally, it has been Region I's practice to use a residential scenario, as well as other scenarios that may be appropriate, for the purpose of conducting baseline risk assessments at Corrective Action and Superfund sites. In a few instances the Region has designated a non-residential use (commercial or industrial use) for a site prior to the selection of a remedy. In the Superfund Program, those decisions typically have been made at the second Management Review Meeting during the RI/FS process.

Decisions regarding current and future land use assumptions at Corrective Action facilities should be considered as early as possible in the Corrective Action process. A Management Review Meeting should be held when the RCRA Facility Manager (RFM) believes there is adequate information to consider whether a future non-residential use scenario is appropriate for a particular facility prior to remedy selection. If a non-residential facility use assumption is endorsed by management and if a risk exceedance is found, Media Protection Standards need to be developed based upon an on-site non-residential use, off-site groundwater use, or ecological risk. In this case, the appropriate exposure assumptions for on-site groundwater use is site-specific. Following the RFI/CMS, the selection of Media Protection Standards along with the appropriate institutional controls and financial assurance would be determined during the Management Review Meeting prior to issuing the Statement of Basis.

According to proposed Subpart S, contaminated soil should be remediated to levels consistent with plausible future patterns of use. For unrestricted access, soils would be remediated to levels appropriate for residential use. For sites located in industrial areas that are likely to remain industrial in the foreseeable future, exposure assumptions consistent with industrial land use and cleanup to less stringent levels might be appropriate, although institutional controls could be necessary to ensure that the use pattern did not change. See section V.B. (page 30804) of proposed Subpart S. Superfund is currently considering similar guidance for addressing current and reasonably expected land use for risk assessment early in the RI/FS process. In addition, the Administration's proposed Superfund re-authorization bill encourages early decisions on land use and early community involvement.

Local plans and community input are key factors for EPA in making current and future land use assumptions prior to selection of a remedy. Generally, EPA will not make a non-residential future use assumption prior to remedy selection without such community input. The burden rests with the facility to collect and present land use information if the facility feels making a non-residential future land use assumption prior to selection of the final remedy is appropriate. The consideration by EPA of a future non-residential use scenario early in the Corrective Action process typically will be triggered by a request from the facility or the community. In order to best determine the appropriate current and future use of a site prior to the time of remedy selection, the facility must submit supporting information including the following:

1. local zoning laws and zoning maps showing current zoning and future proposed changes,
2. location of the facility and surrounding land use;

3. proximity of the site to residential areas;
4. local development plans;
5. local population growth projections;
6. characteristics of neighboring properties;
7. concurrence of local officials;
8. groundwater use, groundwater classification, location of private wells, and the extent and characteristics of any off-site groundwater plume;
9. input from the public;
10. deed restrictions which the facility considers necessary to restrict the use of the land and groundwater to non-residential use;
11. a description of the institutional controls which the facility anticipates would be necessary to protect human health and the environment by preventing human exposure to contaminants; and
12. financial assurance mechanisms to fund future cleanup consistent with a residential use should conditions change.

The RFM should consult the previously mentioned letters sent to Engelhard and Remington Arms or other more recent correspondence for examples of these requirements. The RFM should review this information and hold technical discussions with his/her Section Chief, ORC, etc. prior to a Management Review Meeting.

Once there is adequate information to consider whether the future non-residential use of the property is appropriate, the RFM should prepare a recommendation regarding the current and future use of the site and convene a Management Review Meeting. The procedures for convening a Management Review Meeting are addressed in another, frequently updated memorandum. The possible outcomes of the Management Review Meeting include the following future use scenarios: residential, non-residential, or conditionally non-residential. If a residential future use scenario is chosen, the risk assessment and Media Protection Standards would be based on residential use (it is Region I policy to allow the facility to calculate baseline risks for other use scenarios as well). This does not preclude the later selection of a conditional remedy with institutional controls as the final remedy in a Statement of Basis. If a non-residential future use scenario is chosen, the risk assessment and Media Protection Standards need only be based on a non-residential

future use on-site, off-site groundwater and land use, and ecological risk, with the understanding that institutional controls and financial assurance will be part of the final remedy. If a conditional non-residential future use scenario is chosen, the risk assessment and Media Protection Standards would be provided for both residential and non-residential on-site future uses, and the final remedy would be conditioned on continued non-residential use of the site. In such a conditional remedy, the remedy would provide that if, in the future, use of the site were to change to something other than non-residential, additional remedial work would be necessary. Financial assurance typically would be part of the remedy to provide for this contingency.

Even if EPA accepts a facility's proposal to apply a non-residential scenario for the human health risk assessment for the site, the results of the ecological risk assessment and a review of the off-site exposures must still be considered when calculating the Media Protection Standards for the site. Based on the results of these two evaluations, the ecological risk assessment may be the driving factor in determining the cleanup levels for the facility.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

April 18, 1994

David Miu, RPM  
U.S. Department of the Navy  
Northern Division  
10 Industrial Highway  
Code 1823, Mail Stop 82  
Lester, PA 19113-2090

RE: EPA's Comments on the Halliburton NUS Corporation letter  
Dated March 28, 1994

Dear Mr. Miu:

The purpose of this letter is to transmit EPA's comments on the subject letter concerning Investigation-Derived Waste (IDW) disposal at the Naval Submarine Base - New London, Groton, Connecticut.

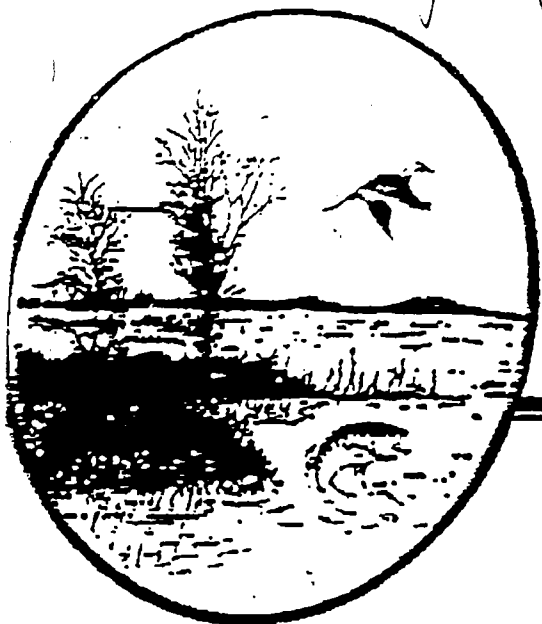
The referenced letter recommends disposal practices that are consistent with the objectives presented in EPA guidance document "Management of Investigation-Derived Wastes During Site Inspections", dated May 1991. The Navy should be aware that state regulations may be more stringent than federal and any final disposal decisions should be consistent with state regulations.

Discharge of pumping test water, decontamination water and well development and purge water into the base sewer system is one of the above referenced guidance document's recommended disposal methods provided that the discharge is in conformance with the POTW's discharge permit and that the discharge is in conformance with the sewer discharge permit. This permit can be an amendment to the sewer discharge permit application on file now at the EPA and must be "in hand" prior to conducting the pump test. As the approval usually takes some time to secure, you should have been coordinating with Mr. Richard "Skip" Hull, Water Division EPA, at (617) 565-4881 who is working to develop other pre-treatment permits for New London. He can advise you as to the analysis and contaminate levels that will be required to be met prior to disposal.

Any containerized IDW must, at a minimum, be accumulated in accordance with State and Federal container management requirements for hazardous waste (i.e., drums in good condition, closed containers, etc.,) promulgated under the Resource



4/4 10:15



## DEPARTMENT OF THE NAVY

NORTHERN DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
10 INDUSTRIAL HIGHWAY  
MAIL STOP, #62  
LESTER, PA 10113-2060



Phone #: Commercial (610) 595-0567  
Autovan 443-0567

FAX #: Commercial (610) 595-0555

**FROM:**

**NAME:**

**PHONE:**

b:  
ACTIVITY:

**FAX NUMBER:**

REMARKS:

DEX TRANSMITTED

BY:

DATE:

**TIME:**

Chargine.

PLEASE REVIEW ATTACHED TELLER/CLERK MEMO  
AND PROVIDE WRITTEN COMMENT ASAP: NG 40694.

My fax number is 610-595-0555.

Ames.

Yours Truly  
4-25-94.

## **INVESTIGATION - DERIVED WASTES**

Five types of investigation-derived wastes (IDW) are being generated at Subase, NLON. Those wastes include Personal Protection Equipment (PPE), pumping test water, drilling and sampling equipment decontamination water, well purge waters, and drill cuttings. A description of the recommended disposal procedures for each waste type is included in the following paragraphs. Pertinent page numbers of the EPA document titled "Management of Investigation - Derived Wastes During Site Inspections", EPA/540/G-91/009, May, 1991; will be referenced as appropriate for further guidance.

It should be noted that none of the IDW generated at Subase NLON are considered to be RCRA Hazardous waste due to the expected low levels of contamination, and the fact that no RCRA listed wastes were mixed with the IDW. The IDW will however, contain low levels of CERCLA hazardous substances.

**PPE** - PPE that has been collected during the field investigation has been decontaminated and bagged and deposited in the site dumpster in accordance with the recommended procedure on pages 23 and 25. Approximately a total of 50 garbage bags filled with PPE will be deposited in the dumpster during the course of the entire field investigation.

**Recommendation** - Continue current practice

**PUMPING TEST WATER** - A 72-hour pumping test will be conducted during the week of April 4, 1994 at the Area A landfill. Approximately 22,000 gallons of groundwater will be removed at a rate of 5 gallons per minute from pumping well 2LPW16, which will require disposal. A sample of the groundwater was collected and sent to the laboratory for analyses of TCL volatile and semivolatile compounds.

**Recommendation** - Application has been made with the State of Connecticut for approval to dispose of this water to the base sewer system. Pending approval from the State, it is recommended that the water be disposed in this manner.

## **DRILL RIG DECONTAMINATION AND SAMPLING DECONTAMINATION WATER -**

Approximately 4000 gallons of water has been collected as the result of steam cleaning operations and the rinsing of sampling equipment from various locations at the base. The water has been containerized in labeled, 55-gallon drums and stored at the equipment decontamination area near the Area A Landfill.

**Recommendation** - Application has been made with the State of Connecticut for approval to dispose of this water to the base sewer system. Pending approval from the State, it is recommended that the water be disposed in this manner.

**WELL DEVELOPMENT AND PURGE WATER** - Approximately 250 gallons of development and purge water from the first round of groundwater sampling has been collected in labeled 55-gallon drums and stored at the equipment decontamination area near the Area A Landfill.

**Recommendation** - Application has been made with the State of Connecticut for approval to dispose of this water to the base sewer system. Pending approval from the State, it is recommended that the water be disposed in this manner.

A total of approximately 500 gallons of groundwater will also be generated during monitoring well purging from the second round of groundwater sampling, which will be conducted in June, 1994. It is recommended that groundwater that has no expectation of contamination and is visually free from contaminants be discharged onto the ground surface next to the well to allow infiltration, as recommended on page 23 and 25 of the reference document. Ground water that is suspected to be contaminated will be collected and stored in labeled 55-gallon



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APR 7 1994

Ms. Nancy Donahue  
IPEC, Inc.  
200 Whitehall Street  
Providence, RI 02909

Re: Dust Collector Filters

Dear Ms. Donahue:

This letter is in response to your letter dated March 11, 1994, requesting EPA's position on the applicability of certain portions of the regulations promulgated pursuant to the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 et seq. to activities undertaken by your customers using dust collection systems manufactured by IPEC.

In your letter, you indicate that IPEC is a manufacturer of dust collection units. These units contain a filtration system that uses forty-two (42) separate filters to remove particulates from the air. These units are designed for two thousand (2,000) hours of repeated use before the filters in these systems require replacement. IPEC requests EPA to clarify whether federal regulations require the removal and replacement of these filters when the dust collection units are either used for different jobs or transported over the road.

Ken Rota, of my staff, indicated that he spoke with you on March 11, 1994 and March 25, 1994 and that, based on those conversations, you wished EPA to clarify whether or not the filters are classified as wastes prior to reaching their useful life.

In response to this clarification, EPA does not consider the filters a waste prior to reaching their useful life. When the filters have reached their useful life, they would be considered wastes and the generator of these used filters would, at a minimum, be required to conduct a hazardous waste determination to determine the regulatory status of these spent materials.

The interpretation above does not apply to any waste particulates that may be collected and/or stored by these filters. If the units are transported without emptying the filters, IPEC or its customers could be considered transporters of hazardous waste if the waste material met either the characteristic or listing criteria set forth in 40 C.F.R. Part 261. It was noted in your



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*Fred  
Friedman*

March 7, 1994

Mr. Jerry Gauthier  
Department of Navy  
Portsmouth Naval Shipyard  
Portsmouth, NH 03804-5000

Dear Mr. Gauthier:

This letter is in response to your letter dated December 21, 1993 regarding the following issues:

- EPA's current and future procedures for fluorescent lamp disposal regulations.
- Does EPA have a standardized test in place for preparing florescent lamps for the Toxicity Test.

Under the hazardous waste regulations, each generator of a waste is responsible for making a hazardous waste determination under 40 CFR 262.11. If the waste exhibits one of the four characteristics of hazardous waste identified in subpart C of part 261 or is a waste listed in Subpart D of Part 261, it must be managed in accordance with the hazardous waste regulations. Therefore fluorescent lamps that meet the above criteria must be managed as a hazardous waste and disposed of at a hazardous waste facility in accordance with 40 CFR parts 264 or 265 and parts 268 and 270.

Regarding your question on future regulatory requirements for fluorescent lamps, there was published in the Federal Register on October 25, 1993 a Notice which indicates the Agency's intention to consider creating an exemption for fluorescent lamps (Attachment).

EPA has standard procedures for performing the TCLP test on the extract for a given sample of waste (40 C.F.R. 261 Appendix II). The only requirement is that a representative sample be taken. EPA does not have guidelines on how one would go about preparing

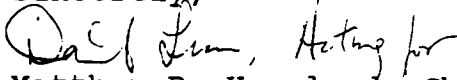


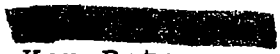
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a fluorescent lamp for the TCLP test. Enclosed for your review is a report from the Science Application International Corporation that contains a summary of guidelines that they suggest if followed will yield accurate results.

If you have any questions regarding this matter you may contact Mel R. Cheeks at 617-223-5590.

Sincerely,

  
Matthew R. Hoagland, Chief  
ME, NH, & VT  
Waste Regulation Section

cc:   
Ken Rota  
Lisa Papetti

[illegible]

Legal Authority: 42 USC 6905; 42 USC 6912; 42 USC 6921; 42 USC 6922; 42 USC 6938

Legal Deadline: None

that these lamps may not create an environmental problem when disposed in municipal landfills or sent to mercury reclamation facilities. In addition, there are substantial environmental benefits from using fluorescent lamps, primarily due to energy savings. Therefore, the Agency is considering options for exempting

Timetable:

Small Entities Affected: None

Additional Information: SAN No. 3237.

RIN: 2050-AD93

**ANALYTICAL RESULTS OF MERCURY  
IN FLUORESCENT LAMPS**

Submitted by  
Science Applications International Corporation  
7600-A Leesburg Pike  
Falls Church, VA 22043

May 15, 1992

EPA Contract No. 68-WO-0027  
SAIC Project No. 01-0825-03-0615-001

Submitted to:  
Project Officer  
David Topping  
Office of Solid Waste  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460



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March 4, 1994

Todd Leedberg, Waste Management Specialist  
New Hampshire Department of Environmental Services  
Hazardous Waste Compliance Section  
6 Hazen Drive  
Concord, NH 03301-6509

Dear Todd:

On or about December 29, 1992, Joan Jouzaitis of my staff received information from Robert A. Tardif of NHDES pertaining to Watts Regulator Company's (Watts) exportation of lead contaminated silica sand from its Jet Wheelblast finishing operation to Falconbridge/Kidd Creek smelting operations in Timmins, Ontario. Following is the Regional interpretation of the regulatory status of the lead contaminated sand, given the information provided by Watts and NHDES. We apologize for the delay in responding to your request for a regulatory interpretation on this issue, but as you know, we have been coordinating our effort with EPA headquarters in Washington, DC.

Lead Containing Sand - Characteristics & Intended Fate

The correspondence between Watts and NHDES indicates that the lead contaminated silica sand being shipped from Watts to Canada contains quantities of lead which have been shown to leach by the TCLP and EP toxicity tests (EP Toxicity - 73 mg/l lead, per laboratory test result dated 6/4/86; and TCLP - 130 mg/l lead, per laboratory results dated 8/17/90) and this sand is used as a flux in a Canadian copper smelter. Watts has claimed that the flux provided by their facility contains 2-5% copper and 80% silica, and is therefore an effective substitution for a commercial product, and thus is not regulated as a solid waste, in accordance with 40 C.F.R. § 261.2(e).

As Watts has stated in its letters to NHDES, the ultimate fate of the lead contained in the silica sand fed into the foundry operations is that it is caught up in the vitrified slag generated from smelting operations. This vitrified slag (which is blasted with water to form a granular grit) is either sold to the asphalt shingle industry as a grit additive, or disposed on-site in Canada. According to Watts, this grit is rendered unleachable, due to the vitrification process.



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### Considerations For Regulatory Interpretation

The regulation 40 C.F.R. § 261.2(e)(ii) states that materials are not solid wastes when they can be shown to be recycled by being used or reused as effective substitutes for commercial products. Watts states in a letter dated November 5, 1992 to John J. Duclos of NHDES that the lead containing silica sand is to be used as a flux additive, and enclosed a letter from Noranda (parent company of Kidd Creek) demonstrating that this material can be used as a flux additive. Watts also stated that "the silica is discharged directly into the flux feed hoppers without any preparation, recovery, or reclamation." Although the waste sand generated by Watts is a "spent material," it is similar to virgin silica used as a fluxing agent to remove metal contaminants (including lead) in the copper smelting process.

In its correspondence to EPA, Watts provided a copy of a draft agreement between itself and Noranda Sales Corporation (Noranda) as agent for and on behalf of Falconbridge Ltd., stating that there was an agreement to accept the material as a fluxing agent feedstock. It is clear that the smelter has accepted, and can use this material as a feedstock.

EPA Region I is forwarding you a copy of a memo dated April 26, 1989, from Sylvia K. Lowrance, Director of the Office of Solid Waste to Hazardous Waste Management Division Directors. This memo addresses the issue of whether a secondary material may be considered "commodity like." The considerations in making this determination are spelled out as follows: (1) whether the secondary material truly has value as a raw material/product (i.e., is it likely to be abandoned or mismanaged prior to reclamation rather than being reclaimed?) and 2) whether the recycling process (including ancillary storage) is likely to release hazardous constituents (or otherwise pose risks to human health and the environment) that are different from or greater than the processing of an analogous raw material/product. These considerations should be addressed by Watts in order to support NHDES's determination of the regulatory status of this material.

### Conclusion

Watts should be required to demonstrate to NH DES that they have addressed the considerations set forth in Sylvia Lowrance's memo, above, in order to classify the lead contaminated silica sand as a non-hazardous waste. The first of these considerations is whether the secondary material truly has value as a raw material or product. Whether the lead contaminated silica sand is likely to be abandoned or mismanaged prior to reclamation rather than being reclaimed must also be addressed.

Noranda has stated in a letter to John P. Twombly of Watts Regulator, dated January 18, 1991, that "a sample of the foundry [sic] sand was analysed [sic] at our laboratory at Kidd Creek, and we believe, due to the high silica content, that this

material has the proper composition and consistency to be used as a fluxing agent. Our analysis shows that this material has value due to its intended practical application as a silica flux." The material being shipped from NH to Canada is useable, according to Watts.

Watts has stated that they must pay a fee of \$65 per short wet ton of contaminated silica received at the smelter site. Watts should address, in correspondence to NH DES, why it must pay this fee. If this is related to the fact that Watts is only able to supply a few days supply of silica to the foundry, then this should be detailed in Watts response. (Mr. Twombly of Watts stated in a conversation with Joan Jouzaitis of EPA Region I on March 31, 1993, that his annual supply of silica sand provides only 5-8 days worth of flux for the foundry.) Watts should address the perceived conflict between the utility of using the lead contaminated silica sand vs. the monetary value of the lead contaminated silica sand.

The second consideration is whether the recycling process, as detailed by Watts, including storage and transport considerations, is likely to release hazardous constituents, or otherwise pose risks to human health and the environment) that are different from or greater than operation of the smelter with non lead contaminated sand used as the flux. As an example, it is not clear how Watts will store lead contaminated silica sand at its facility so as to pose minimal risk of harm to human health and the environment. NH DES may wish to further question Watts on its current storage practices for this material at its NH facility, as well as how the transportation of the material to Canada will be performed in a manner minimizing risk. Watts should be advised that mismanagement of the material, such as the uncontrolled storage of the sand on the ground, may be classified as use constituting disposal, which would result in the designation of the storage area as a Solid Waste Management Unit (SWMU). Releases from a SWMU could potentially subject the facility to corrective action responses.

The Canadian smelter currently manages lead containing ores, and should have some practices in place for limiting employee and environmental exposures to the lead. However, it is Watts' responsibility to detail to NH DES how the presence of the lead in the sand is not likely to release hazardous constituents that are different from or greater than the operation of the lead smelter with non lead contaminated sand used as the flux.

The unleachable, lead-containing grit generated in Canada by foundry operations would be regulated by all applicable Canadian laws and regulations.

So long as the considerations set forth in Sylvia Lowrance's letter are met, the lead contaminated silica identified above would not be a solid waste, and therefore would not be a federal hazardous waste. The shipment of the material to Canada would

not be subject to the hazardous waste exporting requirements. Please be advised that our assessment of the non-hazardous classification of these wastes is based solely upon the recycling scenario spelled out by Watts in its correspondence to NHDES, and that any changes in the proposed method of recycling may result in a change to the regulatory status for that specific material.

You may wish to look at Federal Register, Volume 50, No. 3, p. 638, dated January 4, 1985. This portion of the Federal Register for the recycling regulations provides guidance for determining whether a particular recycling operation constitutes a "sham" recycling operation. The preamble language states, among other things, that a secondary material must not be ineffective or marginally effective for its claimed use. Secondary materials that are ineffective or marginally effective for a claimed use are deemed "surrogate disposal." The preamble also states that secondary materials used in excess of the amounts necessary for operating a process or not handled in a manner consistent with their use as a raw material or commercial product substitute are further indications of a sham recycling operation.

A determination by the State or EPA that a particular recycling activity does not constitute a "sham" would also confirm that this secondary material is "commodity-like" and, therefore, would have an economic value at least equivalent to the commercial product this material is replacing.

Please call Joan Jouzaitis of my staff at (617) 573-5775 if you have any questions concerning this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bruce Marshall".

Bruce Marshall, Chief  
RCRA Support Section



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2/18/94

Daniel Segall, Health and Safety Director  
Coastal Energy Incorporated  
12 Burton Street  
Worcester, MA 01607-1004

Dear Mr. Segall:

This letter is in response to your February 2, 1994 letter requesting EPA's opinion of your proposed sampling protocol for construction and demolition debris for the hazardous characteristic lead. As I stated during our telephone conversation on January 31, 1994, sampling and analyses plans for hazardous wastes are designed on a case by case basis to account for the particular characteristics of the waste or wastes to be sampled. The main goal of any well designed hazardous waste sampling plan is to ensure that a representative sample of the waste is collected to accurately determine whether or not the waste may be hazardous.

Your description of the proposed methodology for sampling demolition and construction debris may be adequate provided the samples collected are representative of the waste. I have enclosed a section from EPA's Test Methods for Evaluating Solid Wastes SW-846 on sampling plans. This section describes a variety of ways in which wastes may be sampled and includes some examples for determining whether the samples collected are representative of the waste.

If you have any questions concerning this matter, please call me at (617) 573-5759. Charles Porfert of EPA's Environmental Services Division reviews EPA sampling and analysis plans and can be reached at (617) 860-4313.

Sincerely,

Kenneth B. Rota, Environmental Protection Specialist  
RCRA Support Section



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2/11/94

February 11, 1994

Mr. Robert Ankstitus  
Rizzo Associates  
235 West Central Street  
Natick, MA 01760

Dear Mr. Ankstitus:

Your letter, received by this office on January 6, 1994, requests a determination on whether the treatment of lead contaminated soils in a pug mill would be exempt from federal permit requirements.

The federal regulations allow on-site treatment of hazardous waste in tanks or containers without a permit, as long as the treatment conforms with the requirements of 40 C.F.R. §262.34 (accumulation time) and Subparts I and J of 40 C.F.R. Part 265 (tank and container standards). Title 40 C.F.R. § 260.10 defines a container as "any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled." The pug mill described in your submittal may fit the RCRA definition of container. If so, hazardous waste treatment occurring in this device, under the conditions cited above, would be part of the permitting exemption.

The treatment process described in your submittal describes the stockpiling of the contaminated soil/chemical mixture while the mixture is curing. EPA would consider the curing period to be part of the treatment process. Therefore, this process must also be conducted in a tank or container in order to make the entire process exempt from permitting. Finally, it is important to note that the entire treatment and curing process would have to occur within ninety days.

You should also be aware that the MA DEP has permitting standards that may be different from those of EPA. You may want to contact them prior to initiating this project. If you have any questions about these issues, please contact Lisa Papetti of my staff at 573-5745.

Sincerely,

Gary B. Gosbee, P.E., Chief  
MA & RI Waste Regulation Section

cc: Lisa Papetti, EPA  
Steve DeGabriele, MA DEP





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January 31, 1994

Mr. Christopher S. Way  
Waste Management Specialist  
New Hampshire Department of Environmental Services  
Waste Management Division  
6 Hazen Drive  
Concord, NH 03301-6509

Dear Mr. Way:

This letter is in response to your May 28, 1993 inquiry. In your letter, you state that a New Hampshire facility proposes to recover terpene by recycling hazardous wastewater generated by its Massachusetts facility. Your main concern was whether the owner of the New Hampshire recycling facility would be subject to permit requirements under 40 CFR Parts 264 and 265 if it could be designed to operate without storing the waste.

Title 40 C.F.R. § 261.6(c)(2) states that owners or operators of facilities that recycle recyclable materials without first storing them are subject to notification requirements under Section 3010 of RCRA, 42 U.S.C. 6930 and the regulations requiring that hazardous wastes be properly manifested, set out at 40 C.F.R. §§ 265.71 and 265.72. Also, the air emissions standards of Part 264, Subparts AA and BB, apply to owners or operators of facilities subject to RCRA permitting requirements operating hazardous waste management units that recycle hazardous wastes.

In answer to your questions regarding transfer of waste from the vehicle to the process, and the use of feed hoppers/tanks, the Region has consulted with the Department of Transportation (DOT), and offers the following interpretation. The Transfer of Hazardous waste from a vehicle directly into a recycling process does not constitute storage, provided that the vehicle is unloaded in accordance with the DOT regulations found at 49 C.F.R. Part 177, Subpart B. Those regulations state that a vehicle is "unloading" when it is "attended," as defined at 49 C.F.R. § 177.834(h)(3). Further, the individual "attending" the unloading must be "qualified," as defined at 49 C.F.R. § 177.834(h)(4). Should the recycling unit malfunction, a storage



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determination may be made on a case by case basis (e.g. storage may result if the recycling unit was inoperative for several days). The waste is considered "stored" in the vehicle for regulatory purposes when: a) the motive power is removed from the vehicle, b) the vehicle is not attended; c) the delivery hose or mechanism is not directly piped into the recycling process, or; d) the flow of waste into the recycling unit is interrupted. The regulatory agency will determine if the flow has been interrupted on a case by case basis, and take into account the manner in which the particular unit operates.

EPA is enclosing a copy of the applicable DOT regulations for your reference.

EPA generally considers feed tanks/hoppers to be an essential component of a recycling unit. However, the feed tank/hopper must provide a steady flow of waste to the recycling process, and their capacity should be no greater than the hourly rated capacity of the recycling unit. Alternately the feed tank/hopper's capacity could equal the minimum volume necessary to provide a steady flow of waste to the recycling unit, whichever is less.

We are enclosing a copy of the April, 1987 RCRA Hotline Report. This document answers a question regarding storage prior to recycling and provides some additional guidance on this issue.

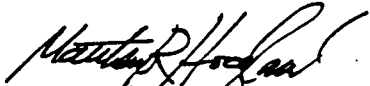
The proposed use of an evaporation unit to treat the remaining hazardous wastewater would require a permit. Such units are regulated under 40 C.F.R. Part 264, Subpart X, which sets out the permit requirements for miscellaneous units. However, EPA does allow the treatment of hazardous waste in tanks or containers without a permit, provided that: a) Subpart I (Use and Management of Containers) and Subpart J (Tank Systems) of Parts 264 or 265 are complied with; b) the waste is stored for Less than 90 days, and; c) all applicable requirements of 40 CFR Part 268 (Land Disposal Restrictions) are met (p.g.10168/FR/Vol. 51, No./Monday, March 24, 1986).

Finally, your letter expresses concern that requirements in addition to the standard permit provisions might be advisable in order to obviate the danger that recycling facilities might

operate inadequately and yet not be accountable for clean up costs or public health liability. RCRA allows States to promulgate more stringent RCRA requirements than those set out in the federal regulations. Such State regulations might require additional permitting requirements to ensure added protection to human health and the environment.

If you have any questions regarding these matters, please contact Mel Cheeks at 617-223-5590

Sincerely,



Matthew R. Hoagland, Chief  
ME, NH & VT Waste Regulation Section

CC; Joshua Secunda, ORC  
Ken Rota, RCRA Support  
Joan Jouzaitis, RCRA Support

*San Antonio Report 12/20/87*

*-157*

## II. SIGNIFICANT QUESTIONS AND RESOLVED ISSUES

### A. RCRA

#### 1. Storage Prior to Recycling

According to the hazardous waste recycling regulations promulgated as part of the January 4, 1985 rule (50 FR 6147), owners or operators of facilities that recycle materials without prior storage are subject only to Section 3010 notification requirements and §265.17 and §265.70 manifest regulations per §261.6(c)(2). Do the two following recycling operations involve storage prior to recycling?

- (a) Truck drivers with bulk shipments or drums of spent solvent pour the solvent into a receiving bin at a recycling facility. The receiving bin is directly hard-piped to the distillation unit, such that the receiving bin feeds the distillations unit. When the distiller is non-operational (at night), some waste solvents may remain in the feed tank.
- (b) As in the first situation, bulk shipments or drum of spent solvent are poured into a receiving device at a second recycling facility. The receiving device is essentially a tank with a pump in the bottom which is connected to a large tube that directly feeds into the distillation unit. The pump is in operation whenever there is waste in the tank. Therefore, the tank never contains solvent when the distillation unit is not in operation.
- (a) Although there is no time limit for storage, the two recycling facilities are fundamentally different. The first recycler uses the receiving bin to store waste when the distillation unit is not operating. Per §261.6(c)(1), he is subject to the storage standards.
- (b) In the case of the second recycler, he does not use the receiving bin for storage. His receiving bin is more clearly used only for conveyance, not storage. The bin is more directly tied to the operation of the recycling unit and indeed, could be viewed as part of the recycling unit. Hence, the second recycler would only be subject to §261.6(c)(2) (i.e., getting an EPA ID number and complying with the manifest standards.)

Source: Matt Straus (202) 475-8551  
Research: Kim Gotwals

*Mitch Kidwe*  
*Mike Peterson (202) 260-9878*

(c) A carrier (or owner) who operates a motor vehicle which contains a package of highway route controlled quantity radioactive materials as defined in § 173.403(d) of this subchapter shall prepare a written route plan and apply a copy before departure to the motor vehicle driver and a copy to the shipper (before departure for exclusive use shipments, or otherwise within fifteen working days following departure). Any violation between the route plan and routes actually used, and the reason for it, shall be reported as an amendment to the route plan delivered to the shipper as soon as practicable but within 30 days following the deviation. The route plan shall contain:

(1) A statement of the origin and destination points, a route selected in compliance with this section, all planned stops, and estimated departure and arrival times; and

(2) Telephone numbers which will cross emergency assistance in each state to be entered.

(d) No person may transport a package of highway route controlled quantity radioactive materials as defined in § 173.403(d) of this subchapter, on a public highway unless:

(1) The driver has received within the two preceding years, written training on:

(i) Requirements in Parts 172, 173, and 177 of this subchapter pertaining to the radioactive materials transported;

(ii) The properties and hazards of radioactive materials being transported; and

(iii) Procedures to be followed in case of an accident or other emergency.

(2) The driver has in his immediate possession a certificate of training as evidence of training required by this section, and a copy is placed in his qualification file (see § 391.51 of this title), showing:

(i) The driver's name and operator's license number;

(ii) The dates training was provided;

(iii) The name and address of the person providing the training;

(iv) That the driver has been trained in the hazards and characteristics of

highway route controlled quantity radioactive materials, and

(v) A statement by the person providing the training that information on the certificate is accurate.

(3) The driver has in his immediate possession the route plan required by paragraph (c) of this section and operates the motor vehicle in accordance with the route plan.

(e) A person may transport material in a motor vehicle only in compliance with a plan if required under § 173.22(c) of this subchapter that will ensure the physical security of the material. Variation for security purposes from the requirements of this section is permitted so far as necessary to meet the requirements imposed under such a plan, or otherwise imposed by the U.S. Nuclear Regulatory Commission in 10 CFR Part 73.

(f) Except for packages shipped in compliance with the physical security requirements of the U.S. Nuclear Regulatory Commission in 10 CFR Part 73, each carrier who accepts for transportation a highway route controlled quantity of radioactive material (see § 173.401(d)), shall, within 90 days following the acceptance of the package, file the following information concerning the transportation of each such package with the Director, Office of Hazardous Materials, Transportation, HCSA:

(1) The route plan required under paragraph (c) of this section, including all required amendments reflecting the routes actually used.

(2) A statement identifying the names and addresses of the shipper, carrier and consignee; and

(3) A copy of the shipping paper or the description of the radioactive material in the shipment required by §§ 172.202 and 172.203 of this subchapter.

(49 USC 1004, 1001, 1006, 19 CFR 1.54, App A to Part 1)

(Approved by the Office of Management and Budget under Control number 2147-0540)

(Amend 177-52, 56, 58, 59, 60, Jan 19 1981, as amended by Amend 177-57, 10, 19 1981, 10247, Mar 10 1983, Amend 177-58, 10, 19 1981, Apr 21 1983, Amend 177-68, 51, 19 1985, Feb 10 1986, Amend 177-71, 52, 19 1986, 22)

§ 177.826 Control requirements.

(a) Packages secured in a vehicle. Any tank, barrel, drum, cylinder or other packaging, not permanently attached to a motor vehicle, which contains any flammable liquid, compressed gas, corrosive material, poison, or radioactive material, shall be secured against movement within the vehicle on which it is being transported under conditions not normally incident to transportation.

(b) No hazardous materials on pole trailers. No hazardous materials, may be loaded into or on or transported in or on any pole trailer.

(c) No smoking while loading or unloading. Smoking on or about any motor vehicle while loading or unloading any explosive, flammable liquid, flammable solid, oxidizing material, or radioactive material, shall be prohibited.

(d) Keep fire away. Loading and unloading. Extreme care shall be taken in the loading or unloading of any explosive, flammable liquid, flammable solid, oxidizing material, or radioactive material, to keep fire away and to prevent persons in the vicinity from smoking, lighting matches or carrying any flame or lighted cigar, pipe, or cigarette.

(e) Handbrake set while loading and unloading. No hazardous material shall be loaded into or on or unloaded from any motor vehicle unless the handbrake be securely set and all other reasonable precautions be taken to prevent motion of the motor vehicle during such loading or unloading process.

(f) Use of tools. Loading and unloading. No tools which are likely to damage the effectiveness of the closure of any package or other container, or likely adversely to affect such package or container, shall be used for the loading or unloading of any explosive or other dangerous article.

(g) Prevent relative motion between containers. Containers of explosive, flammable liquids, flammable solids, oxidizing materials, corrosive materials, compressed gases, and poisons, liquids or gases, must be so braced as to prevent motion thereof relative to

§ 177.826 Carrier's registration statement. Flammable cryogenic liquid.

(a) No person may transport a flammable cryogenic liquid in a portable tank or a cargo tank unless he has filed a registration statement by certified mail, return receipt requested with the Director, OHS&T, HCSA in accordance with paragraph (b), (c) and (d) of this section.

(b) The registration statement must contain the following information:

(1) The carrier's name and principal place of business;

(2) Locations where cargo tanks are used to transport flammable cryogenic liquids are domiciled;

(3) The serial number of vehicle identification number of each cargo tank used by the carrier to transport flammable cryogenic liquids, and the name of each flammable cryogenic liquid transported in each cargo tank.

(c) The registration statement must be filed:

(1) Initially between January 1 and February 28, 1985 (this initial statement is only required to contain information regarding operations that took place during the 90 days prior to the date of the statement); and

(2) Subsequently, between January 1 and February 28 of each odd numbered year after 1985.

(d) For equipment obtained or operations begun between the two year filing intervals specified in paragraph (c) of this section, the information must be provided on the registration statement filed during the next required filing period.

(Approved by the Office of Management and Budget under Control number 2147-0541)

(49 USC 1004, 1001, 1006, 19 CFR 1.54, App A to Part 1)

(Amend 177-69, 10, 19 1981, 27114, June 16 1981, 40, 19 1981, 27114, June 16 1981)

Subpart B Loading and Unloading

Note: For prohibited loading and storage of hazardous materials, see § 177.810.



managed, the Agency has decided to impose manifest requirements on these generators, except in the case of certain reclamation agreements. The existence of a State-approved collection center does not, on its own, provide assurance that the waste would be transported or handled properly prior to or during transportation to such a facility, or indeed, that the shipment would ever reach such a facility. Consequently, development of some recordkeeping and transportation requirements would be needed which would offset any potential savings of such an exemption.

### B. Part 264/265 Facility Standard Issues

The requirements for facilities that treat, store, or dispose of hazardous waste are contained in Parts 264 and 265 of the hazardous waste regulations. The Part 265 standards are applicable to facilities under interim status, a condition which allows a facility to continue operating until it receives a full RCRA permit. See HSWA section 3005(f). The Part 264 standards establish the minimum standards to be incorporated into a full RCRA permit by EPA or a State with an EPA authorized hazardous waste program.

Section 301.5(b) previously exempted generators of 100-1000 kg/mo of hazardous waste from the facility requirements of Parts 264 and 265 that cover the on-site treatment, storage, or disposal of hazardous waste, provided the facility is at least approved by a State to manage municipal or industrial (non-hazardous) solid waste and no more than 1000 kg of hazardous waste were accumulated at any time. Under the rules promulgated today, this exemption will continue to apply only to generators of less than 100 kg/mo of hazardous waste. Generators of 100-1000 kg/mo of hazardous waste will be subject to full regulation under Parts 264 and 265 if they accumulate hazardous waste on-site for greater than 180 (or 270) days, exceed the 9000 kg accumulation limit, engage in waste treatment in other than tanks, or manage their waste in surface impoundments, waste piles, landfills, or land treatment facilities. In addition, those State-approved municipal or industrial waste facilities that manage wastes only from generators of 100-1000 kg/mo will also no longer be exempted from the Part 264 and 265 permit requirements. In the proposed rule, the Agency requested comments concerning the application of the uniform Part 264 and 265 requirements to generators of 100-1000 kg/mo and to the treatment, storage, and disposal facilities that accept waste from the generators.

#### 1. Activities Requiring Permits

Under today's final rules, 100-1000 kg/mo generators will be required to obtain a permit if they treat or dispose of hazardous waste on-site, except for treatment in tanks or containers during the 180/270 day accumulation period in conformance with Subparts (j) or (l) of Part 265, respectively, or accumulate hazardous waste on-site in tanks or containers for more than 180 (or 270) days.

A number of commenters agreed with the need to manage wastes from generators of 100-1000 kg/mo at fully permitted facilities. They argued that no special exemptions or requirements should be applied to the management of waste from these generators because the characteristics of the waste, not the source of the waste, poses the threat to human health and the environment.

Two commenters opposed the requirement for generators of 100-1000 kg/mo who accumulate waste on-site for longer than 180 (or 270) days to obtain RCRA permit, and argued that the accumulation time limit before permitting is required should be extended. One of the commenters also maintained that determining the maximum quantity of hazardous waste that may be accumulated at a non-permitted facility should be based on the degree of hazard posed by the waste and the generator's capacity to transport the waste off-site. The EPA disagrees with both of these positions. As noted in Unit III.C.4.a. of today's preamble, the HSWA of 1984 clearly limit Agency discretion in this matter. The Agency carries a heavy burden in extending the time limits established under section 3001(d)(6), and except for emergency circumstances, the Agency does not believe there to be sufficient justification for extending the limits Congress has established.

Another commenter opposed any permitting requirement due to the economic burden that would be placed on a small number of generators. While some generators of 100-1000 kg/mo may be burdened financially by the requirements promulgated today, Congress has already judged that outside of the accumulation limits allowed for in Section 3001(d)(6), disposal of wastes from these generators at permitted facilities is necessary to protect human health and the environment. In addition, since the rules allow generators to manage their hazardous wastes off-site, they are able to avoid the cost of acquiring a RCRA permit, if they so choose.

Several commenters suggested exemptions from the RCRA permitting requirements or reduced permit

requirements for on-site waste treatment. Some commenters stated that there is a need to encourage on-site treatment to reduce the amount of wastes sent off-site and that the permitting requirements may hamper the ability of generators to treat wastes at their facilities.

The Agency disagrees that on-site treatment should be encouraged by exempting those generators of 100-1000 kg/mo from the RCRA permitting requirements. To the extent that these generators are conducting the same treatment, storage, or treatment disposal as other permitted facilities, their on-site treatment activities pose a potential risk to human health and the environment. Therefore, reduced or eliminated permitting requirements would be inappropriate.

Of course, no permitting would be required if a generator chooses to treat their hazardous waste in the generator's accumulation tanks or containers in conformance with the requirements of § 262.04 and Subparts (j) or (l) of Part 265. Nothing in § 262.04 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision. Under the existing Subtitle C system, EPA has established standards for tanks and containers which apply to both the storage and treatment of hazardous waste. These requirements are designed to ensure that the integrity of the tank or container is not breached. Thus, the same standards apply to a tank or a container, regardless of whether treatment or storage is occurring. Since the same standards apply to treatment in tanks as applies to storage in tanks, and since EPA allows for limited on-site storage without the need for a permit or interim status (30 days for over 1000 kg/mo generators and 180, 270 days for 100-1000 kg/mo generators), the Agency believes that treatment in accumulation tanks or containers is permissible under the existing rules, provided the tanks or containers are operated strictly in compliance with all applicable standards. Therefore, generators of 100-1000 kg/mo are not required to obtain interim status and a RCRA permit if the only on-site management which they perform is treatment in an accumulation tank or container that is exempt from permitting during periods of accumulation (180 or 270 days).

Two commenters suggested that a mechanism should be created to tailor RCRA permits to the circumstances of individual facilities. For example, one commenter specifically asked for a simplified and streamlined permit for the incineration of spent paint spray



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

December 13, 1995

Daniel Gillingham, Regulatory Compliance Manager  
Franklin Environmental Services, Inc.  
Transportation Programs  
185 Industrial Road  
P.O. Box 617  
Wrentham, MA 02093

Re: LDR Notification Requirements

Dear Mr. Gillingham:

This is in response to your letter dated October 26, 1995, requesting EPA's position on the proper language for Land Disposal Restriction forms where shipments of hazardous wastes destined for CWA/CWA equivalent/Class I facilities are initially transported to a non CWA/CWA equivalent/Class I transfer facility. You state that a "common problem" occurs when a generator manifests LDR waste off-site to a transfer facility that, in turn, ships the waste off-site to a CWA/CWA equivalent facility for ultimate disposal.

Based on the information contained in your letter, there does not appear to be any regulatory issue in this matter. It is clear to me that the first facility is not acting as a transfer facility and is signing the designated facility portion of the manifest as the TSDF. As such, the non-CWA language sent by the initial generator is appropriate and the generator of the initial manifest has met his obligations. Also, the transfer facility upon signing the manifest as the "Designated Facility" in Item 9, effectively terminates the shipment at that point. Any subsequent shipment involving this waste would require the TSDF to prepare and sign a new manifest as the generator and would also require the TSDF to identify the appropriate LDR language for the next receiving facility (CWA/CWA equivalent for your example).

If, as you suggest, the first facility was acting in the capacity of a transfer facility (i.e. less than ten days) and not a TSDF, the LDR notice would not be an issue because the facility would only be completing Item 7 of the hazardous waste manifest and signing as a continuing transporter. This type of transfer does not complete the shipment, would not terminate the manifest and would allow the LDR CWA/CWA equivalent language on the LDR Notice since the CWA/CWA equivalent facility would be the designated facility that completes the manifest and terminates the shipment.



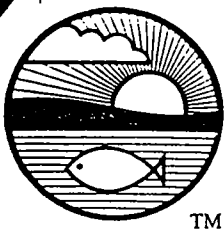
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contains at least 75% recycled fiber

If you have any further questions regarding this matter, please contact me at (617) 565-3349.

Sincerely,

A handwritten signature in cursive script, reading "Kenneth B. Rota". The signature is written in dark ink and is positioned above the typed name.

Kenneth B. Rota, Environmental Protection Specialist  
RCRA Enforcement Unit



**Franklin  
Environmental  
Services, Inc.**

185 Industrial Road  
P.O. Box 617  
Wrentham, MA 02093  
TEL. 508-384-6151  
FAX 508-384-6028

*Ken Rata*  
Licensed and Permitted in the  
United States and Canada  
FED. EPA ID #MADO84814136

ENVIRONMENTAL SERVICE PROFESSIONALS

October 26, 1995

Mr. Frank Ciavattieri  
Waste Management Division  
USEPA, Region 1  
JFK Federal Building, Room 2203  
Boston, MA 02203

Dear Mr. Ciavattieri:

I am requesting Region I's interpretation of LDR notification requirements when shipping to transfer facilities. Franklin Environmental Services, Inc. is an environmental contractor and transportation company in Massachusetts that frequently is requested by our customers/generators to offer them assistance in regulatory questions such as this item.

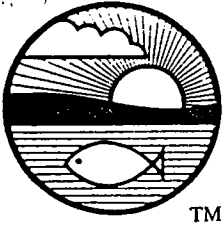
Several of the LDR regulations, such as treatment standards and additional required language are contingent on whether a certain waste is managed in a non-CWA/non-CWA equivalent/non-Class I SDWA system only. A common situation arises when we transport waste to a TSDF that is not a CWA/CWA equivalent/Class I facility itself but ships the waste to a TSDF that is. Since the ultimate disposal will occur at a CWA/CWA equivalent/Class I SDWA facility, is the generator in the first shipment (to a non CWA/CWA equivalent/Class I facility) required to submit LDR notifications that comply with the non CWA or CWA requirements?

I would request that you reply to this letter in a written correspondence; please cite any references to the regulations or OSWER Directives that have any bearing on this situation.

Thank you in advance for your cooperation and timely reply to this request.

Sincerely,

Daniel Gillingham  
Regulatory Compliance Manager



**Franklin  
Environmental  
Services, Inc.**

185 Industrial Road  
P.O. Box 617  
Wrentham, MA 02093  
TEL. 508-384-6151  
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*Kin Kala*  
Licensed and Permitted in the  
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FED. EPA ID #MADO84814136

ENVIRONMENTAL SERVICE PROFESSIONALS

October 26, 1995

Mr. Frank Ciavattieri  
Waste Management Division  
USEPA, Region 1  
JFK Federal Building, Room 2203  
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Thank you in advance for your cooperation and timely reply to this request.

Sincerely,

Daniel Gillingham  
Regulatory Compliance Manager



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

August 21, 1995

Mr. Thomas Andrews  
New Hampshire Department of Environmental Services  
Waste Management Division  
6 Hazen Drive  
Concord, NH 03301-6509

Dear Mr. Andrews:

Thank you for your telephone call requesting a determination regarding the metals precipitated from the groundwater at the Keefe Environmental Services Site in Epping, NH. You stated that the metals are the naturally occurring minerals in the groundwater. Specifically, you wanted to know if this waste stream (metals) could be disposed of as a solid waste. You stated that by using sodium hydroxide, the metals are precipitated out of groundwater in order to make the groundwater more amenable to treatment via air stripping.

Historically, contamination at the site was due to the transportation and storage of hazardous waste (i.e., Trichloroethylene, Tetrachloroethane, Dichloroethane, Benzene, and 1,1 Dichloroethylene). Based on the TCLP analysis, there were no volatile or semi-volatile constituents detected in the metals that were precipitated out of the groundwater. Also, the TCLP for these metals was well below regulatory limits.

Generally, residue (e.g., precipitated metals) from the treatment of a listed hazardous waste is also a listed hazardous waste. However, in this case the precipitated metals are derived from environmental media (e.g., groundwater) that contain a listed hazardous waste. If the precipitated metals do not contain any constituents of the listed hazardous waste, it is not considered to be a hazardous waste.

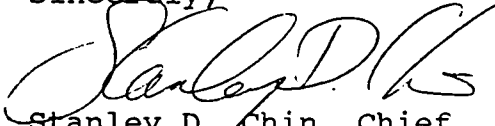
However, the high metals content in a waste stream has been known to mask TCLP results. It is recommended that a totals analysis be done to determine if any of the listed constituents of



concern are contained in the precipitated metals. If any hazardous constituents of concern are present, then the State of New Hampshire may make a determination as to whether the concentrations of these constituents pose a threat to human health and the environment.

If you have any questions regarding this matter, please do not hesitate to call Mel R. Cheeks at 617-223-5590.

Sincerely,

A handwritten signature in black ink, appearing to read "Stanley D. Chin", written in a cursive style.

Stanley D. Chin, Chief  
RCRA Support Section

June (6), 1995

A. A. Brunell Electroplating Corp  
Jonathan Brunell, President  
41 Sutton Lane  
Worcester, MA 01603

Dear Mr. Brunell:

This letter is in reponse to your inquiries of April 20 and May 3, 1995. In both instances, your primary concern was directed toward regulation of the metal hydroxide sludge.

As you stated, your company employs three electroplating processes: 1) an acid-zinc on carbon steel electroplating process 2) a passivation of stainless steel process and 3) a phosphate on carbon steel process. In addition, a post plating treatment of "Ebonol Z-80" which contains an isocyanate compound had been used, but has been discontinued. Based on this information, EPA has made the following determinations:

1) The wastewater treatment sludge resulting from the acid-zinc electroplating on carbon steel is specifically exempt from the F006 hazardous waste designation, as set out at 40 CFR 261.31.

2) With regard to the Ebonol Z-80 treatment process, this cyanide based compound would produce a hazardous sludge. However, as you stipulated in the letter of May 3, the Ebonol Z-80 process has been discontinued and you certified that cyanide will never be present in the metal sludge. Based on the certification, your sludge should not be hazardous from a cyanide viewpoint.

3) Lastly, the passivation and phosphate processes which you described in a faxed letter (5/24/95) are acid-related treatments to ferric and stainless steel finished products. The wastewater generated by these processes is adequately treated by your treatment system and discharged to the local POTW.

It was also determined that these treatment processes are not listed specifically in any of the solid hazardous waste categories. As a result, you should rely on TCLP test data to determine if your sludge has any toxicity characteristics. Based on EPA's review of your submittal, it was determined that no toxic constituents were present in the metal hydroxide sludge sample analyzed.

In conclusion, it appears that the metal hydroxide sludge generated at your facility is not classified as a RCRA hazardous waste and is not subject to the respective regulations. However, you are reminded that Massachusetts DEP is authorized for base program implementation of RCRA and such they may have state regulations which are more stringent than EPA. It is strongly recommended that you contact them for further guidance regarding

this matter. If you have any questions regarding this determination, please contact Tom Murphy of my staff at 617-223-5522.

Sincerely,

Gary B. Gosbee PE, Chief  
Permits and State Programs Section

CC: MADEP Bill Sirull



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

JOHN F. KENNEDY FEDERAL BUILDING  
ONE CONGRESS STREET  
BOSTON, MASSACHUSETTS 02203-2211

May 10, 1995

Mr. David Nash  
Waste Enforcement and Engineering Division  
Waste Management Bureau  
Department of Environmental Protection  
79 Elm Street  
P.O. Box 5066  
Hartford, Connecticut 06102-5066

EPA I.D. No. CTD001147495

Re: Pfizer Request for Release of Treated Tank Vault Soils from  
RCRA Subtitle C Management Requirements.

Dear Mr. Nash:

We have received a request from Pfizer Incorporated to release from RCRA Subtitle C management requirements certain soils contaminated by listed hazardous wastes from above ground tank vaults and subsequently treated on-site using vacuum extraction (these soils are hereafter referred to as the "tank vault soils"). Pfizer has requested that we apply the "contained-in" policy to make this release.

We have determined that although the tank vault soils no longer "contain" hazardous wastes at levels that pose unacceptable risks to human health and the environment, the presence of other non-hazardous waste derived contaminants necessitate specific management controls. The purpose of this letter is to provide our recommendation for applying the current "contained in" policy to the Pfizer situation and to inform you of our views for the proper management of the treated tank vault soils. Specifically, this letter: (1) discusses our interpretation of the "contained-in" policy as it pertains to Pfizer's situation, (2) compares the hazardous constituents present in the treated tank vault soils to acceptable risk levels, (3) provides considerations for management options, and (4) expresses our views on Pfizer's proposed management control option for the treated tank vault soils.

"Contained-In" Policy

The contained in policy involves a determination as to whether media contaminated with listed hazardous wastes, and subsequently treated to remove such wastes, no longer exhibit concentration levels which would warrant continued management under RCRA Subtitle C. Media can be contaminated by hazardous constituents that are: (1) derived from solid wastes which are also listed or



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characteristic hazardous wastes, (2) derived from solid wastes which are neither listed nor characteristic hazardous wastes, (3) derived from materials which are not solid wastes, or (4) a combination of any of the above.

The management options available for media that contain constituents derived from hazardous wastes within their media matrix at levels above those deemed protective of human health and the environment is limited to those within the scope of the RCRA Subtitle C base program<sup>1</sup>. A broader range of management options is available for soils that contain only hazardous constituents that are not derived from hazardous wastes; that is, a situation which does not implicate the contained in policy because the media does not contain a hazardous waste. The decision for managing media in the latter example can be made on a case-by-case basis (e.g., under a RCRA Corrective Action authority) so long as human health and the environment are protected. Unrestricted use of media may be allowed upon a finding that the media would not pose unacceptable risks to human or ecological receptors.

#### Comparison to Acceptable Risk Levels

A report characterizing the contaminant concentrations in the treated tank vault soil was prepared by Recra Environmental Inc. and submitted to our office in June 1993. Supplementary soil characterization information has been provided by Pfizer since that time. A list of possible hazardous constituents that could have been released into the tank vault soils was provided to us on March 31, 1995.

The analytical data submitted indicates that highest post-treatment VOC concentrations in the tank vault soils were below 20 ppb. A concentration of 0.019 ppm total xylenes was the highest reported for the seven VOC constituents detected, with approximately 27 grab samples collected per constituent. Highest post-treatment metals concentrations included 3.0 ppm Arsenic, 64.8 ppm Lead, 15.8 ppm Nickel, 13.3 ppm Chromium, 1.2 ppm Cadmium, and 45.5 ppm Copper. Maximum post-treatment semi-volatile concentrations included 14 ppm (estimated) Benzo(a)anthracene, 12 ppm (estimated) Benzo(b)fluoranthene, 9.9 ppm (estimated) Benzo(a)pyrene, 5.0 ppm Indeno(1,2,3)pyrene, and 1.1 ppm Dibenz(a,h,)anthracene.

The concentrations of hazardous waste-derived constituents were compared to human health risk-based concentrations. Hazardous waste derived constituents were not compared to ecological risk-

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<sup>1</sup> "Base program" as used here means the regulations promulgated pursuant to the RCRA statutes prior to the Hazardous and Solid Waste Amendments of 1984.

based concentrations because information is not available to assess all of the potential ecosystems and pathways corresponding to locations at which the soils could eventually be placed. The primary hazardous waste-derived constituents of concern in the Pfizer treated tank vault soils are VOCs in general, with xylene being the VOC constituent of greatest concern. The post-treatment concentration of xylene is less than the human health concentration of concern for a default residential scenario.<sup>2</sup> As a result, the treated tank vault soils are determined not to "contain" hazardous wastes at concentrations that pose unacceptable risks and are therefore exempt from management under the RCRA base program.

Each of the maximum semi-volatile concentrations cited above exceed the  $10^{-6}$  carcinogenic risk level point of departure for a residential scenario, some by over an order of magnitude. Our review also indicates that the maximum reported concentrations for arsenic and the semi-volatiles are in exceedance of the  $10^{-6}$  risk-based concentrations for human industrial exposures, although generally by less than an order of magnitude<sup>3</sup>. In summary, our review of Pfizer's analytical data indicates that these soils contain constituent levels which exceed acceptable human health exposure concentrations for residential soil. Therefore, we conclude that these soils should not be granted unrestricted management status. Again, ecological impacts were not considered as the analysis would be site-specific.

#### Considerations for Developing Management Options

Although it is our opinion that the treated tank vault soils do not fall under the jurisdiction of the RCRA base program, the presence of hazardous constituents above human health-based levels necessitates consideration of the relevant and appropriate aspects of the RCRA base program and the applicable aspects of the RCRA Corrective Action program when management options are being considered. Human health pathways and routes, fate and transport, and ecological pathways should be considered in the management option analysis.

An industrial exposure scenario for incidental human exposures would be considered an appropriate approach to assessing human pathways and routes. If incidental ingestion were not an operable pathway, then there would be some discretion in determining that these soils were acceptable for some management option consistent with unlikely ingestion exposure. The likely management option for non-liquid, contaminated media would be management in a

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<sup>2</sup> Risk-Based Concentration Table, Third Quarter 1994 , Roy L. Smith, Ph.D., U.S. EPA - Region III).

<sup>3</sup> Id.

landfill or other managed disposal facility. The drinking water pathway should also be considered in this situation if deemed appropriate (e.g., actual or potential downgradient wells).

Site-specific contaminant fate and transport could consider by analogy the Land Disposal Restrictions Universal Treatment Standards (UTS).<sup>4</sup> The UTS are maximum concentrations for any single grab sample of waste that must be met prior to any land disposal of such waste. The UTS are mandated to reflect standards which minimize short-term and long-term threats to human health and the environment from the waste<sup>5</sup>. The only exception to this land disposal prohibition for wastes with one or more grab sample concentrations in excess of a UTS is the disposal of the waste in a facility with an approved "No Migration" demonstration. A comparison of Pfizer's analytical data with the UTS indicate that all of the semi-volatile constituents identified above, with the exception of Dibenz(a,h,)anthracene, are in exceedence of the applicable UTS. Therefore, if this material were a hazardous waste, it would be prohibited from any land disposal, except in a No-Migration unit, without further treatment to meet the UTS. The Agency recognizes, however, that media such as soil is not always amenable to treatment technologies suitable for waste materials.<sup>6</sup>

The operative ecological pathways would depend on whether the materials were incorporated as fill or used as cover material. If used as cover material, consideration of exposure to burrowing animals, or to grazing animals through consumption of vegetative cover and subsequent food-chain transfers would seem appropriate. These pathways would not likely be operative if the material was incorporated as fill rather than used as cover material. Subsequent leaching of the constituents of concern into groundwater and/or surface waters and the resulting potential ecological exposures/impacts should also be considered.

#### Pfizer's Proposed Management Control Option

Pfizer recently submitted a possible on-site alternative for disposition of the treated tank vault soils. This alternative is outlined in the attached correspondence from Richard M. Davis, Pfizer to David Guest, EPA-New England, dated March 22, 1995. Briefly, the alternative involves using the treated tank vault

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<sup>4</sup> Land Disposal Restrictions Phase II: Final Rule (59 FR 47982, Sept. 19, 1994)

<sup>5</sup> 42 U.S.C. § 6924(m)(1)

<sup>6</sup> 59 FR at 47986

soils as subgrade for a proposed parking area which will be paved with asphalt.

We encourage the beneficial reuse of such materials in a way not posing any adverse risk to human health or the environment. We believe that this alternative would be acceptable given that the asphalt surface will likely eliminate any incidental ingestion pathway and significantly reduce leaching of the residual constituents. Therefore, potential human or ecological exposures would likely be minimal. Note that the surrounding area is served by town water.

We strongly recommend conditioning the use of the treated tank vault soil as parking lot subgrade material upon Pfizer identifying this area as a Solid Waste Management Unit (SWMU) subject to RCRA Corrective Action. This SWMU designation will allow for a more site-specific review of the propriety of this disposition when any future Corrective Action activities occur at the facility.

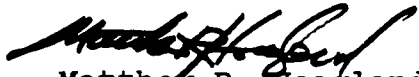
### Conclusion

In our opinion the treated tank vault soils contain hazardous constituents derived from both hazardous wastes and non-hazardous solid wastes. The concentrations of hazardous waste-derived constituents when considered alone are determined to be at levels that do not pose an unacceptable risk to human health and the environment. This fact relieves Pfizer from the requirement of managing the tank vault soils only in accordance with RCRA base program. However, the concentrations of remaining non-hazardous waste-derived constituents that remain in the treated tank vault soils necessitates consideration of relevant and appropriate RCRA base program requirements and the applicable RCRA Corrective Action requirements when considering management options.

Pfizer's proposed beneficial reuse of the treated tank vault soils beneath an asphalt surface is viewed as an acceptable short-term alternative so long as the area of tank vault soil depositional area is designated as a Solid Waste Management Unit. The final decision regarding the disposition of these soils should be a component of a Corrective Action final remedy decision and comply with State laws.

Should you have any questions regarding this matter, please feel free to contact me at 617/573-5791.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew R. Hoagland".

Matthew R. Hoagland, Chief,  
Corrective Action Section

ATTACHMENT

cc: Richard M. Davis, Pfizer



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

MAY 9 1995

Vincent F. Hock, Metallurgist  
U.S. Army Corps of Engineers  
Construction Engineering Research Laboratories  
P.O. Box 9005  
Champaign, IL 61826-9005

Dear Mr. Hock:

This letter is in response to our recent telephone call regarding the use the product Blastox® as an additive in shot blast for the purpose of stabilizing metal contaminants. As I stated during our conversation, Curt Gustafson and Red Clark of The TDJ Group, Inc. (manufacturer of Blastox®) also telephoned me concerning the use of Blastox®. Specifically, the issue raised was whether or not this product was considered a "masking agent" and interfered with the Toxicity Characteristic Leaching Procedure (TCLP) used by EPA to determine if a solid waste is also a hazardous waste. Both Mr. Gustafson and Mr. Clark stated that, in their opinions, Blastox® was a legitimate abrasive additive.

As I understand the situation, you, Mr. Gustafson and Mr. Clark would like EPA to make a determination as to whether the use of this product is legitimate with the intent of using EPA's interpretation on a national basis. Due to the scope of this determination, I feel that EPA Headquarters in Washington D.C. is the most appropriate source to address this issue. During my conversations with you, Mr. Gustafson and Mr. Clark, a number of legal and technical issues were identified that need to be addressed by EPA Headquarters.

First, Blastox® does not appear to greatly enhance the sandblasting process nor is this sandblasting process dependent upon the use of this product. Despite its abrasive properties, the reason for adding this material, as I understand it, is specifically to treat sandblast waste, that would be otherwise hazardous by not using this product. I would expect EPA Headquarters to definitively address the issue of whether or not the addition of Blastox® prior to the sandblasting process constitutes hazardous waste treatment. Although no waste is actually generated, the purpose and intent of adding this material is to treat metal-contaminated sandblast waste prior to generating the waste to specifically render the waste non-hazardous (as determined by the Toxicity Characteristic Leaching Procedure (TCLP)).

During our conversation, you stated that Blastox® chemically stabilized the sandblast waste and had properties similar to Portland cement. You also stated that, like Portland cement, water must be added to start the reaction and cause the resultant



sandblast and Blastox® mix to stabilize. My conversations with Red Clark and Curt Gustafson, of The TDJ Group, Inc. also determined that Blastox® is a heavily buffered material. As a buffered material that requires water to complete the fixation process, I cannot determine with any reasonable certainty whether Blastox®, in its dry form, actually stabilizes the sandblast waste or, because of the buffered compounds, masks the TCLP test.

Mr. Clark stated that, in his opinion, the stabilization/fixation process occurs from the use of Blastox® in the dry state. However, Mr. Clark, like myself, is aware that the TCLP test uses water as part of the testing procedure. As such, a determination as to whether or not stabilization actually occurs in a dry form may not be possible since the water used to conduct the TCLP test may actually cause the Blastox® and sandblast waste to stabilize during the testing process. If stabilization is determined not to occur in the dry state, the addition of water after the sandblasting process would clearly constitute hazardous waste treatment. A determination as to whether the stabilization process occurs in a dry state is critical to determine the regulatory status for the use of this product.

My review of the Demonstration Project conducted by the Army Corps of Engineers found that Blastox® was used in a "dry" form during the sand-blasting process. As you may know, there is no legal obligation to add water to the sandblast and Blastox® waste mixture after use if a sample of the mixture passes the TCLP test. Therefore, if stabilization does not occur in a dry form, the TCLP test results may not be indicative of the actual hazards posed from the dry disposal of this material. Again, there is no assurance that this waste would be wetted down prior to disposal. As you are probably aware, Subtitle D disposal fees are usually based upon weight and would be a further disincentive to adding water (~8.5 lbs/gal) to this material since it would increase both the weight and disposal costs.

Since this issue appears to concern matters beyond ordinary testing of the waste, I contacted EPA Headquarters in Washington, D.C. and was informed that the Waste Treatment Branch was the appropriate section within the Agency to respond to your request for an interpretation. As such, the Region will defer any final interpretations concerning the use and disposal of this material to the Waste Treatment Branch. I will forward a copy of your reports to Richard Kinch, the Chief of this Branch. To initiate a formal request for interpretation, a letter should be written and sent to EPA Headquarters. These letters are recorded and tracked. Mr. Kinch's telephone number is (703) 308-8434.

I appreciated the opportunity to discuss this issue with you. The final decision of Headquarters will be of national significance since other Department of Defense facilities have contacted me and are also considering the use of this product for lead abatement activities at federal facilities throughout the country.

Sincerely,

*Kenneth B. Rota*

Kenneth B. Rota, Environmental Protection Specialist  
RCRA Support Section  
EPA-New England Region

U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
J.F. KENNEDY FEDERAL BUILDING, BOSTON, MA 02203-2211

MEMORANDUM

DATE: May 9, 1995

UBJ: Sand Blast Additive (Treatment Interpretation)

FROM: Kenneth B. Rota, Environmental Protection Specialist *KBR*  
RCRA Support Section  
Region I

TO: Richard Kinch, Chief  
Waste Treatment Residuals Branch

This memo is a "heads-up" regarding the use of a sandblast additive known as Blastox®. I have enclosed two reports submitted to me by the Army Corps of Engineers Research Laboratory located in Champaign, Illinois. The reports document a two year Army Corps study of Blastox®, a silicate-based sandblast additive. Blastox® was used in a removal/chemical fixation study by the Army Corps. The Army Corps verbally requested an opinion as to whether the use of this product in the sandblast grit is legitimate or is considered "treatment." If the additive is not considered treatment prior to use, the Army Corp also requested an interpretation as to whether the addition of water, after the sandblasting process, is considered treatment.

The product is silicate-based material that appears to have buffering capacity available. I have included my initial response to the Army Corps of Engineer for your information. My letter raised a number of issues and concerns that I have about this product. Since the waste generated by this type of process is generally not listed, it would appear that the TCLP test would be the main indicator of whether the Blastox® and sandblast grit mixture is hazardous. The fact that the additive is buffered is not a consideration in the TCLP test (despite using the more aggressive extract) and would enhance the ability of sandblast grit to pass the TCLP test.

My understanding is that if the regulatory status of the use of this product is favorable, DoD is prepared to gear up for a major lead removal initiative that is problematic at federal facilities.

My direct telephone number is (617) 573-5759 if you have any questions. OSW referred this issue to your program.



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
CONSTRUCTION ENGINEERING RESEARCH LABORATORIES, CORPS OF ENGINEERS  
P.O. BOX 9005  
CHAMPAIGN, ILLINOIS 61826-9005

May 26, 1995



Materials Science & Technology Division

U.S. Environmental Protection Agency  
Mr. Richard Kinch, Chief  
Waste Treatment Branch  
401 M Street, S.W.  
Mail Code 5302W  
Washington, DC 20460

Dear Mr. Kinch:

Reference correspondence from Mr. Kenneth B. Rota, U.S. EPA New England Region, to the undersigned, dated May 9, 1995.

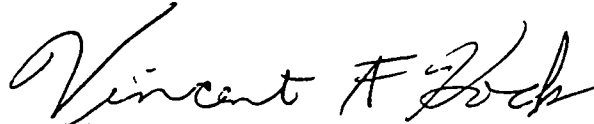
As explained in the attached correspondence, our office has investigated a proprietary product, Blastox<sup>®</sup>, which chemically stabilizes debris generated during the abrasive blast removal of lead-based paint. Blastox<sup>®</sup> is a dry granular material that has a chemical composition and properties similar to portland cement. It is added to traditional sandblast abrasives at a rate of 20 to 25% by weight. The U.S. Army Construction Engineering Research Laboratories (USACERL) demonstrated the use of this product in lead paint removal projects at several Army installations. In each case the resultant waste leached lead at a rate of less than five parts per million when tested in accordance with the toxicity characteristic leaching procedure (TCLP).

Our laboratory also conducted an investigation of the mechanism of the fixation of lead that occurs with Blastox<sup>®</sup>. We found no evidence that the product reacts in the dry state to stabilize the lead in the waste. Based on the laboratory data, we concluded that the stabilization reaction occurs in the wet state, during the TCLP test or when the material otherwise comes in contact with water to initiate a hydration reaction. A copy of the draft USACERL report is attached.

Army environmental reviewers of the draft report have expressed concern about the interpretation of TCLP results of waste generated during blasting with an abrasive incorporating Blastox<sup>®</sup>. In addition, there is some concern over the need to wet the waste prior to disposal to initiate the hydration reaction. If wetting is deemed necessary, is this considered hazardous waste treatment requiring a permit? As Mr. Rota suggested in his letter, we are contacting your office to seek an interpretation of the regulatory status of this product.

If I can be of any assistance, I may be contacted at (217) 373-6753. I look forward to your response.

Sincerely,

A handwritten signature in cursive script that reads "Vincent F. Hock". The signature is written in dark ink and is positioned above the printed name and title.

Vincent F. Hock  
Principal Investigator

Copies Furnished:

Susan Drozdz

~~Ken Rota~~

Should you have any additional questions or concerns regarding this letter, please contact Sharon Leitch of my staff. She may be reached at 617-573-9617.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary B. Gosbee".

Gary B. Gosbee, P.E., Chief  
Permits and State Programs Section

cc: Beverly Migliore, RIDEM

Waterworks International, Inc.  
24 Fairfield St.  
Maynard, MA 01754  
March 1, 1995

*Sharon*  
*Joan*  
Please provide  
response, in  
my signature  
Rtz  
Cooley

Mr. Gary Gosbee  
Rhode Island Waste Regulation Chief  
U. S. Environmental Protection Agency  
HRR-CAN 3  
JFK Federal Building  
Boston, MA 02203

Dear Sir:

This letter is a follow-up to our telephone conversation of February 27th. Waterworks has developed a proprietary process for the regeneration of spent sulfuric acid. We plan to build our first plant in East Providence, Rhode Island. This facility will accept spent sulfuric acid from generators throughout New England. In general, this spent acid has been diluted with water by the generator and may have picked up some additional metal or organic contaminants. In general, this material is currently neutralized with sodium hydroxide or some other caustic material at the generator's facility. The residual solids are sent off site for disposal and the water is typically sent to the local municipal sewer. Our plan is to collect the spent acid in containers, transport those containers to our facility and regenerate the acid.

It is our understanding that a spent acid regeneration facility is exempt from RCRA as detailed in 40CFR 261.4 (a)(7). We would like confirmation of this exemption. Additionally, we are currently preparing a Waste Analysis Plan for this facility. Our primary goal is to insure that we are not transporting hazardous waste to the facility. In that regard we intend to confirm that no hydrochloric or nitric acid has been mixed with the sulfuric acid. It is our understanding that such a mixture would be a hazardous waste and therefore not legally processed at our facility. We also will exclude "spent batteries" from our facility, although we may process spent acid from "spent batteries". Do we need to be concerned with TCLP materials defined in 40CFR 261.24? There are some materials, such as mercury, that are listed in Table 1 of 261.24 but that occur in virgin sulfuric acid. Additionally, there are some materials like lead, that are common contaminants in sulfuric acid. Do we or our customers, the generators of the spent acid, need to be concerned with these contaminants? Our understanding is that since the spent acid is being regenerated, that we would not fall under any other classification of hazardous waste as long as the material can be processed in our facility. Our Waste Analysis plan will address any wastes generated at our facility, specifically regarding land disposal of any such wastes. As generator of that waste, we recognize our responsibility is the same as any other generator.

Page 2

Regarding the transport of the spent acid to our facility, it is our understanding that the exemption under 40CFR 261.4(a)(7) also excludes us from any manifest requirements under 263.20. We recognize that there may be a manifest requirement as determined by state law, for example transport of spent acid from Massachusetts to our facility. Is our understanding on the Federal manifests correct?

Our intention is to open the facility this summer. Our goal is to have the Waste Analysis Plan complete in the near future and would therefore appreciate a rapid response to the above issues as well as an indication of any issues we may have overlooked. If you have questions, please call me at (508) 583-6285.

Sincerely,

A handwritten signature in black ink, appearing to read "Lawrence D. Conant", with a stylized flourish at the end.

Lawrence D. Conant  
Chief Operating Officer

conditions such as loss of a set of black liquor evaporators or loss of a recovery furnace. When this occurs, the black liquor in the impoundment is accumulated in excess of what can be accommodated at the facility and so may not be recycled, or not be recycled for a long time.

In light of these uncertainties, the Agency is investigating further whether black liquor stored in an impoundment before recycling in the Kraft process is a waste. In addition, we note that black liquor that is disposed of and not recycled is a waste, and if hazardous, a hazardous waste. This includes black liquor that leaks, leaches, or overflows from an impoundment and is not recycled. Furthermore, the final rule states that black liquor stored before recycling remains subject to the rules on speculative accumulation. Thus, paper mills accumulating black liquor must show that they are recycling 75% of the amount on hand at the beginning of a one-year period.

In summary, today's final rule states that:

- Black liquor accumulating before recycle to the Kraft paper process is not a Subtitle C solid waste. At least for the present time, this exclusion includes black liquor that is stored in a surface impoundment before recycling. The person accumulating must show that the black liquor is not being accumulated speculatively, or the black liquor will be considered to be a waste;

Black liquor that is recycled in some other manner could be a waste and black liquor that is disposed of is a waste.

**2. § 261.4(a)(7): Spent Sulfuric Acid Used to Produce Virgin Sulfuric Acid.** Spent sulfuric acid is frequently used as a feedstock in the production of virgin sulfuric acid. It is normally reintroduced into the original sulfuric acid production process where sulfur values are recovered and absorbed into existing sulfuric acid. 45 FR 14487 n.30. Under the proposal, spent sulfuric acid recycled in this way was not considered to be a solid waste because it was used as an ingredient, used in a primary process, and was burned in an industrial furnace. See 48 FR 14483, 14487 n.30, 14488 n.31.

As discussed earlier (see Section E. above), some commenters questioned the regulatory status of spent materials that are reclaimed and then used as feedstocks. We indicated that normally the spent material would be considered to be a solid waste until it was reclaimed. However, we agree that our discussion of spent sulfuric acid at proposal (in footnote 30) created some confusion.

To eliminate any confusion, we are promulgating a specific exclusion stating that spent sulfuric acid recycled in this way is not a solid waste. As we explained at proposal, the spent sulfuric acid recycling process more closely resembles a manufacturing operation than a reclamation process. In addition, the operation is well established, and accounts for approximately 9% (in 1982) of the roughly 33 million tons of sulfuric acid produced annually. At least one state (California) has indicated by statute that spent sulfuric acid returned to the sulfuric acid production process is not a solid waste. EPA is therefore declaring explicitly that spent sulfuric acid returned to a sulfuric acid production process is not a solid waste. The acid is a hazardous waste if disposed (assuming it is corrosive or exhibits other hazardous waste characteristics), and could be a hazardous waste if recycled in some other manner (such as burning for energy recovery).

#### J. § 261.2(f): Burden of Proof in Enforcement Actions

EPA proposed that if respondents in enforcement actions raised a claim that a particular secondary material was not a solid waste (or was conditionally exempt from regulation) because it was recycled in a particular manner then they had the burden of proof to show that they were indeed recycling in that way. (Proposed § 261.2(d) and 48 FR 14492.) We are adopting this provision in the final regulation.

As discussed earlier in Section F, RCRA creates a broad remedial scheme to ensure that hazardous wastes are managed safely from cradle-to-grave. The regulatory framework envisaged for this problem extends to hazardous wastes being recycled, and normally includes any hazardous secondary material that is being recycled or that is accumulated with expectation of recycling.

Certain exceptions to this remedial scheme to exist. We think it appropriate, and the rule states explicitly, that the burden of proof (in the sense of both the burden of producing evidence and the burden of persuasion) is on the persons claiming that their hazardous secondary material is not a waste because it is within the terms of any of these exceptions. This provision, thus, restates the legal principle that parties claiming the benefits of an exception to a broad remedial statutory or regulatory scheme have the burden of proof to show that they fit the terms of the exception. See, e.g., *SEC v. Ralston Purina Co.*, 348 U.S. 119, 126 (1953) [exception to Securities Act registration requirements]; *U.S. v.*

*First City National Bank of Houston*, 386 U.S. 361, 366 (1967) (exception to merger provisions of Clayton Act); *Arnald v. Ben Knowsky, Inc.*, 361 U.S. 388, 393 (1960) (exception to Fair Labor Standards Act for retail sales); *Weyerhaeuser, Inc. v. Costle*, 590 F.2d 1011, 1040 (D.C. Cir. 1978) (burden of proof is on applicant for Agency-created fundamentally different factors variance).

Viewed another way, the regulations presume that hazardous secondary materials stored before recycling are hazardous wastes. The person accumulating can prove, however, that the materials are not wastes due to the manner of recycling (including the amount of material being recycled). These facts are within the special knowledge of the person accumulating the material. Presumptions of this type have been upheld consistently when they further interpret a remedial statutory purpose, guard against harm to public health and safety, and where the facts to rebut the inference are particularly within the knowledge of the other party. See *Beth Israel Hospital v. NLRB*, 437 U.S. 482, 493, 502 (1978); *U.S. v. General Motors Corp.*, 561 F.2d 923, 924 (D.C. Cir. 1977) (Leventhal J. dissenting in part).

Furthermore, this type of claim is an affirmative defense, for which it is appropriate that the person asserting the defense have the burden of proof. In addition, the facts underlying the recycling defense would be peculiarly within the knowledge of the party asserting the defense, a situation as noted above where it is appropriate for that party to have the burden of proving the issue. We thus disagree with those commenters claiming that the Agency lacked authority, or was ill-advised, to allocate a burden of proof in this regulation. Indeed, the Agency has allocated burdens of proof to respondents in other regulations that create an affirmative defense or an exception to a generally applicable principle. See § 122.42(n)(4) (permittee has burden of proof to establish the affirmative defense of upset); § 124.5 (National Pollutant Discharge Elimination System permit applicant has burden of persuasion that a permit authorizing a discharge of pollutants should be issued). This allocation of the burden of proof was affirmed in *American Petroleum Institute v. EPA*, 661 F.2d 340, 353, 354 (5th Cir. 1981).

There is no formal recordkeeping requirement in the regulation. However, persons must keep whatever records or other means of substantiating their claims that they are not managing a

3/14/95  
LJG

Mr. Al Nardone  
Massachusetts Department of Environmental Protection  
Division of Hazardous Materials  
One Winter Street, 7<sup>th</sup> Floor  
Boston, MA. 02108

Dear Mr. Nardone:

This letter responds to the questions you presented in a recent telephone conversation with Jim Gaffey of my staff concerning the permit renewal of a Massachusetts Laidlaw facility. Specifically, you requested EPA - New England's (EPA) position on dealing with permit conditions for base-program areas not currently a part of the state's authorized RCRA program. Examples included Air Emission Standards for Process Vents, Equipment Leaks and Tanks, Surface Impoundments and Containers (Subparts AA, BB, and the new CC), and the Toxicity Characteristic Rule (TCLP). The theme of your inquiry center around an important policy issue which warrants clarification by EPA. Since this issue is relevant to all authorized State programs, a copy of this response is being forwarded to the five other New England state program offices.

EPA encourages the incorporation of statutory standards into new permits and permit renewals in those instances where the state has adopted applicable regulations into law. For situations where the state has not yet adopted regulations, EPA recommends drafting permits without addressing such provisions in the permit. EPA, however, acknowledges that each facility's hazardous waste management operations must be attended to on a case-by-case basis. Situations may occur which warrant specifying permits conditions in areas where the state is not authorized and no state law exists. In those situations, we recommend using your omnibus provision to ensure protection of human health and the environment.

EPA's position relative to permit conditions for base-program areas not currently a part of the state's authorized RCRA program is based on the following points:

1. As a result of HSWA, self-implementing facility standards imposed by statute apply to all permitted facilities. (Note; the "permit as a shield" for Subparts AA and BB expires on June 5, 1995; the effective date for Subpart CC.)
2. Self-implementing provisions incorporated into a permit will act as a shield for those self-implementing requirements.
3. Permit writers will be called upon to negotiate permit conditions in new areas which may become resource intensive and focus attention away from other key permitting issues.

EPA also recommends describing the position taken in handling this permitting issue in the administrative record of a draft permit for the benefit of the general public and the permittee. You may also add a general facility standards-type permit condition mandating the permittee to comply with all applicable self-implementing provisions imposed by RCRA.

Thank you for bringing this matter to our attention. If you have any comments on this or other permitting matters, please contact James Gaffey of my staff at (617) 223-5542.

Sincerely,

Gary Gosbee, Chief  
Permits and State Programs Section  
Waste Management Division

cc:

Dave Sattler, CT DEP  
Stacy Ladner, ME DEP  
Pam Sprague, NH DES  
Beverly Migliori, RI DEM  
Steve Simoes, VT DEC  
EPA RCRA State Coordinators  
Fred Friedman, LAI



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

file

February 27, 1995

Mr. Donald B. Sargent, Manager  
Safety, Chemical & Environmental Program  
I B M Corporation  
Department 723  
Building 966-2  
1000 River Street  
Essex Junction, Vermont 05452

Dear Mr. Sargent:

This letter is in response to your inquiry on the effect of the new land disposal restrictions (LDR) on IBM. As you know, the new LDRs were promulgated in the September 19, 1994 Federal Register and became effective on December 15, 1994. The regulations are applicable to the newly identified organic toxicity characteristic wastes, D012 - D043, which must meet the treatment standards prior to land disposal. IBM has indicated that D021, D022, D029, D039, D040, and D043 may be handled in the soil treatment facility.

Since IBM considers the contaminated soils as a toxic characteristic (TC) "D" waste, IBM may treat these wastes on-site in a tank or container (such as the vapor extraction system). The Universal Treatment Standards also require generator of a TC waste to determine whether any underlying constituents are present as defined at 40 CFR §268.2. If so, the treatment standards identified for these constituents must be met to satisfy the requirements of RCRA Section 3004(m) prior to on-site or off-site land disposal of this waste. A notification to EPA or the authorized state is required if IBM decides to send the wastes off-site to a Subtitle D disposal facility. In addition, the carbon canisters also need to meet the LDR standards prior to land disposal.

If you have any questions with this letter, please feel free to call me at (617) 573-5776 or Ken Rota, the LDR Specialist, at (617) 573-5759.

Sincerely,

David Lim

ME, NH & VT Waste Regulation Section

cc: Ken Rota, EPA  
Ray McIntosh, IBM





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

*L. Goshell*

January 30, 1995

Mr. Kerry R. Tull  
ATEC Associates, Incorporated  
55 Accord Park Drive  
Rockland, MA 02370

COPY

Dear Mr. Tull:

This letter is in response to your November 3, 1994 letter requesting EPA-New England's interpretation of treatment of lead contaminated soil at a site at 250 Elm Street in Dedham, MA.

As stated in your letter, EPA would consider soil that is contaminated with lead to be a hazardous waste if it fails the Toxicity Characteristic Leaching Procedure (TCLP).

As described in 51 FR 10168, generators are allowed to treat hazardous waste in tanks or containers without a permit as long as the generator complies with the accumulation requirements of 40 C.F.R. § 262.34 and Subparts I and J of 40 C.F.R. § 265 (standards for tanks and containers). If treatment at this site is conducted in accordance with the requirements previously cited, is being conducted in a tank or container and is completed within 90 days, then it would meet this permit exemption. The definitions of "tank" and "container" can be found at 40 C.F.R. § 260.10.

The second issue which you propose is the "stockpiling" of excavated soils prior to treatment. Stockpiling of hazardous waste prior to treatment would be considered storage in a waste pile, as set forth in Subpart L of 40 C.F.R. § 264. Any treatment or storage of hazardous waste in a waste pile would be considered a federally regulated activity which requires a permit.

EPA-New England appreciates your attempt to obtain accurate regulatory information prior to the initiation of excavation activities at this site. Please refer to the regulations and Federal Register notices cited above to obtain detailed information regarding the regulatory status of the proposed process.



If you have any further questions, feel free to call Lisa Papetti  
of my staff at (617) 573-5745.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary B. Gosbee".

Gary B. Gosbee, P.E., Chief  
MA & RI Waste Regulation Section

cc: Lisa Papetti, EPA  
Michael Conway, Retek



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

November 4, 1996

OFFICE OF THE  
REGIONAL ADMINISTRATOR

Thomas M. Coyne  
President, Coyne Textile Services  
P.O. Box 4854  
Syracuse, NY 13221

Re: Request for Change of EPA-New England's Interpretation Regarding Textiles  
Containing Hazardous Constituents

Dear Mr. Coyne:

Thank you for your letter of September 19, 1996 regarding EPA-New England's interpretation regarding textiles (rags or wipers) contaminated with hazardous constituents. Your letter requests that this region reconsider our view that current regulations require wipers contaminated with listed hazardous wastes to be handled as hazardous wastes or at least, agree not to enforce when there are less stringent state determinations regarding these textiles. A request for reconsideration of our interpretation by Mr. Peter Kynch of O'Hara & Hanlon, representing Coyne Textile Services, was answered on April 14, 1993. Our view has not changed from that presented in that response.

Whether soiled rags or wipers are to be disposed of or recycled (laundered), they are solid wastes (40 CFR 261.2). When solid waste wipers are contaminated with a listed hazardous waste (Sec. 261, Subpart D), the mixture is a hazardous waste (Sec. 261.3(2)(iv)). When solid waste wipers are contaminated with a listed hazardous waste or exhibit any of the characteristics of a hazardous waste (Sec. 261, Subpart C), they are subject to regulation under 40 CFR Parts 262 through 266, 268, 270 and 124.

We recognize that the current regulations have a significant impact on your business. EPA Headquarters currently is examining options for reducing the regulatory burden, including in the case of wipers heading for laundering, replacing the current full RCRA requirements with simplified handling requirements. Until this occurs, we must abide by what seems clearly evident in the current RCRA regulations. Moreover, in light of the need for careful handling of these materials and to guard against improper disposal, we are reluctant to reinterpret our current regulations so as to eliminate regulation from these materials entirely.

4/14/93

Peter Knych, Esquire  
O'Hara & Hanlon  
Attorneys at Law  
One Park Place  
Syracuse, New York 13202

Dear Mr. Knych:

This letter is in response to your February 10, 1993 letter on behalf of Coyne Textile Services. In your letter you requested that EPA Region I consider withdrawing or modifying its position regarding the regulatory status of soiled textiles. Region I has considered your request.

First, Region I calls to your attention that all of the states in Region I have been authorized to administer the base Resource Conservation and Recovery Act (RCRA) hazardous waste program, which includes issues associated with hazardous waste identification. Under this authorization, states enforce their own rules and regulations in lieu of the Federal program. Region I believes that this effectively renders the regulatory status of solvent contaminated wipers a state issue.

Secondly, as we discussed in our January 20, 1993 meeting, the issue as presented to us, is whether EPA is willing to create a limited exemption from the full RCRA regulatory scheme for solvent contaminated wipers that are to be reclaimed (laundered). The Region maintains that under its RCRA authority, any such Federal waste stream exemption can only be developed, if at all, on a national level. As you are also aware, there are currently at least two pending petitions on the national level which seek such a regulatory exemption for solvent contaminated wipers. As your letter notes, there may in fact be compelling reasons why such an exemption should exist. Your letter also points out, however, the compelling need to have this issue decided on a national level, mainly to reconcile the seemingly divergent state and Regional positions.

Further, you should note that it is our understanding that solvent contaminated wipers have been raised in conjunction with the universal waste stream discussions ongoing in Washington.



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

May 12, 1992

Mr. Malcom Fox  
Enviroscope, Inc.  
101 N. Main Street  
Suite 150-137  
Ann Arbor, Michigan 48104

Dear Mr. Fox:

This letter is in response to your letter of January 22, 1992, requesting the Region's position regarding the applicability of the Resource Conservation and Recovery Act (RCRA) to solvent contaminated wipers. Initially, I wish to apologize for the delay in responding to your letter. This issue is one which has had a number of key issues affecting it both in the past and in the present. It was imperative that the Region carefully examine all of these factors before clarifying its position.

I would first like to stress that you should be aware that all of the states in Region I have been authorized to administer the base RCRA program, which includes issues associated with hazardous waste identification. Under this authorization, states enforce their own rules and regulations which have been deemed to be equivalent to those of the Federal program, but also which may be more stringent. Therefore, we encourage you to contact each state in the Region to determine their current position on the issue of applicability as well.

The Region has not previously formulated an official policy on the issue of solvent contaminated wipers. However, Region I believes that the solvent contaminated wipers are a hazardous waste and as such their handling must be in full compliance with the regulations under RCRA.

Under our interpretation of the RCRA regulations the contaminated wipers are solid waste when they are to be discarded, regardless of whether the wipers are to be laundered or thrown away, and regardless of how the solvent came in contact with the wiper.

The contaminated wipers are a spent material. (40 CFR § 261.1) If the wipers are being thrown away, then they are clearly being discarded. If the wipers are being laundered, then they are being reclaimed. Under either scenario the wipers are a solid waste as pursuant 40 CFR § 261.2.

Additionally, if the solid waste wipers are contaminated with a solvent listed in 40 CFR § 261.31, or exhibit a characteristic of a hazardous waste (40 CFR Section 261, Subpart C), they are a





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
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October 31, 1996

Steven A. DeGabriele, Director  
Division of Hazardous Materials  
Massachusetts Department of Environmental  
Protection  
One Winter Street  
Boston, MA 02108

Dear Mr. DeGabriele:

As requested by Al Nardone of your staff at our meeting on July 11, 1996, the Hazardous Waste Program Unit of the EPA New England office has reviewed the draft MADEP Class C recycling permit for Global Recycling Technologies located in Stoughton, MA. A member of this office has also participated in a site visit on July 23, 1996, to the facility with representatives from the MADEP Boston and Regional offices. The purpose of this letter is to summarize the EPA's understanding of the issues associated with the activities of this facility and to indicate the Agency's current position on them. We would like to apologize for the delay in transmitting this letter. EPA wanted to ensure that this response included an opportunity for discussions with your staff regarding any issues that they may have had. Those discussions were completed on 10/23/96.

Global Recycling Technologies dedicates a portion of its business to the recycling of Class C regulated recyclable materials as defined under the MADEP Hazardous Waste regulations at 310 CMR 30.214. The MADEP regulates the recycling of these materials through the hazardous waste recycling permit regulations whereas, under the federal RCRA regulations at 40 CFR § 261.6(c)(1), the recycling process itself would be exempt from Subtitle C. These regulated recyclable materials are mercury contaminated manufactured articles and, as indicated in the permit include, but are not limited to, spent fluorescent lamps.

One area where DEP has specifically requested comment concerns the provision of the draft permit with respect to the handling of the fluorescent lamps prior to dismantling. As indicated above, EPA has reviewed the draft Class C permit which clearly indicates that storage of the regulated recyclable materials is not permitted at the facility. In addition, the Class C permit specifies an accumulation time period in order for the lamps to be off-loaded, inspected and sent to the dismantling area. EPA feels that this time period is reasonable and believes that the measures included in the Class C permit are adequate to protect human health and the environment. Those measures include a contingency plan and emergency procedures, employee training, an inspection plan and other requirements similar to those required in a complete Part B facility license.

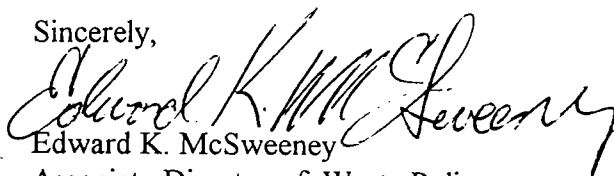


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As you are aware, the environmentally sound regulation of fluorescent lamp recycling is a complex issue. EPA Headquarters is exploring options to foster this and other forms of recycling through several regulatory options. In the interim, the State currently has the option of obtaining authorization to operate the Universal Waste Rule and including fluorescent lamps under that Rule. This should resolve any issues about whether and when these lamps become a solid waste, by considering lamps being sent for recycling as a Universal Waste subject only to streamlined regulation. It is my understanding that Massachusetts is planning to submit an authorization application for the UWR in the very near future. I look forward to working with you towards the mutual goal of authorizing the state for this important rule.

We would like to thank the MADEP for the opportunity to review the above referenced permit and to participate in the facility site visit. Should you have any questions regarding the above please contact me at 617-565-3559 or Gary Gosbee at 617-565-3725.

Sincerely,



Edward K. McSweeney  
Associate Director of Waste Policy

cc: Al Nardone, MADEP  
Bill Sirull, MADEP  
Gary Gosbee, EPA-OEP  
Suzanne Parent, EPA-OES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
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BOSTON, MASSACHUSETTS 02203-0001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

SEP 26 1996

Paul A. Ahearn, Director, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
325 Wood Road  
P.O. Box 327  
Braintree, MA 02184

Re: Class 2 permit modification (carbamate wastes)  
Clean Harbors of Natick, Inc.  
EPA ID# MAD980523203

Dear Mr. Ahearn:

The New England office of the Environmental Protection Agency (the "Agency") has completed its review of the Clean Harbors of Natick, Inc. (the "facility") Class 2 permit modification request dated December 5, 1995, for authorization to manage newly-listed carbamate production wastes (see 60 FR 7824, February 9, 1995). The newly-listed wastes include certain wastes which are generated during the production of carbamate chemicals (the K-list) and also includes commercial chemical products or manufacturing intermediate wastes containing carbamates (U & P lists). These wastes are identified by USEPA waste code numbers: K156-K161, U271, U277-U280, U364-U367, U372, U375-U379, U381-U387, U389-U396, U400-U404, U407, U409-U411, P127, P128, P185, P188-P192, P194, P196-P199, and P201-P205. The final rule listing the new wastes became effective on August 9, 1995.

In addition to the newly listed wastes the facility also seeks authorization under the Class 2 modification request to manage previously listed wastes. Those wastes include: methyl bromide production wastes, USEPA waste code numbers K131 & K132; dimethylhydrazine product wastes, USEPA waste code number K107-K110; coke by products wastes, USEPA waste code numbers K141-K145 & K147; and chlorinated toluenes production waste, USEPA waste code number K149-K151.

The facility issued a public notice for the permit modification request on December 7, 1995, and submitted documentation to EPA that it notified all persons on the mailing list regarding the modification request, in accordance with 40 CFR § 270.42(b)(2).



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Additionally, in accordance with 40 CFR §270.42(b)(4), the facility held a public meeting on January 9, 1996. No comments were received during the public comment period.

The Agency has determined that the Clean Harbors permit modification request has satisfied the requirements of 40 CFR § 270.42(b) for a Class 2 modification. Based on this determination the Agency hereby approves the above referenced modification request pursuant to 40 CFR § 270.42(b)(6)(iii). Based on the authority granted by this modification the facility is permitted to manage only those wastes as indicated above and listed in the facility's revised part A application. This is in addition to any other wastes that the facility is currently permitted to manage in accordance with the Part B permit. This approval only serves to modify those conditions specifically stated in this approval letter, all other permit conditions remain the same.

The action to list these wastes is taken pursuant to Sections 3001(e)(2) and 3001(b)(1) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6921(e)(2) and 6921(b)(1), as further amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6901 et. seq. Section 3006 of RCRA provides EPA with the authority to issue permits for any new requirements and prohibitions until a State is authorized to do so. That section provides that in an authorized State (i.e., Connecticut) the Administrator "shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984". This situation continues until the State revises its program pursuant to 40 CFR § 271.21 to add the wastes to its regulated universe and receives EPA's approval. The facility should be aware, however, that this approval does not relieve it of any responsibility to comply with any other applicable Federal, State or local regulations or requirements.

Should you have any questions regarding this approval please contact Sharon Leitch in the Hazardous Waste Program Unit. She may be reached at (617)565-4879.

Sincerely,



David A. Fierra, Director  
Office of Ecosystem Protection

cc: Kevin McSweeney, Associate Director of Waste Policy, EPA-OEP  
Gary Gosbee, Chief, Hazardous Waste Program Unit, EPA-OEP  
Jane Downing, Chief, Massachusetts Program Unit, EPA-OEP  
Steve DeGabriele, Director, Bureau of Waste Prevention, MADEP  
Al Nardone, Licensing and Permitting, MADEP

only those newly-listed carbamate wastes as indicated above and listed in the facility's revised part A application. This is in addition to any other wastes that the facility is currently permitted to manage in accordance with the Part B permit. This approval only serves to modify those conditions specifically stated in this approval letter, all other permit conditions remain the same.

The action to list these carbamate wastes is taken pursuant to Sections 3001(e)(2) and 3001(b)(1) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6921(e)(2) and 6921(b)(1), as further amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6901 et. seq. Section 3006 of RCRA provides EPA with the authority to issue permits for any new requirements and prohibitions until a State is authorized to do so. That section provides that in an authorized State (i.e., Massachusetts) the Administrator "shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984". This situation continues until the State revises its program pursuant to 40 CFR § 271.21 to add the wastes to its regulated universe and receives EPA's approval. The facility should be aware, however, that this approval does not relieve it of any responsibility to comply with any other applicable Federal, State or local regulations or requirements.

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Sincerely,



David A. Fierra, Director  
Office of Ecosystem Protection

cc: Kevin McSweeney, Associate Director of Waste Policy, EPA-OEP  
Gary Gosbee, Chief, Hazardous Waste Program Unit, EPA-OEP  
Jane Downing, Chief, Massachusetts Program Unit, EPA-OEP  
Steve DeGabriele, Director, Division of Hazardous Materials, MADEP  
Al Nardone, Licensing & Permitting, MADEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

SEP - 4 1996

Paul A. Ahearn, Director, Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
325 Wood Road  
P.O. Box 327  
Braintree, MA 02184

Re: Class 2 permit modification (carbamate wastes)  
Clean Harbors of Connecticut, Inc.  
EPA ID# CTD000604488

Dear Mr. Ahearn:

The New England office of the Environmental Protection Agency (the "Agency") has completed its review of the Clean Harbors of Connecticut, Inc. (the "facility") Class 2 permit modification request dated December 1, 1995, for authorization to manage newly-listed carbamate production wastes (see 60 FR 7824, February 9, 1995). The newly-listed wastes include certain wastes which are generated during the production of carbamate chemicals (the K-list) and also includes commercial chemical products or manufacturing intermediate wastes containing carbamates (U & P lists). These wastes are identified by USEPA waste code numbers: K156-K161, U271, U277-U280, U364-U367, U372, U375-U379, U381-U387, U389-U396, U400-U404, U407, U409-U411, P127, P128, P185, P188-P192, P194, P196-P199, and P201-P205. The final rule listing the new wastes became effective on August 9, 1995.

The facility issued a public notice for the permit modification request on December 5, 1995, and submitted documentation to EPA that it notified all persons on the mailing list regarding the modification request, in accordance with 40 CFR § 270.42(b)(2). Additionally, in accordance with 40 CFR §270.42(b)(4), the facility held a public meeting on January 10, 1996. No comments were received during the public comment period.

The Agency has determined that the Clean Harbors permit modification request has satisfied the requirements of 40 CFR § 270.42(b) for a Class 2 modification. Based on this determination the Agency hereby approves the above referenced modification request pursuant to 40 CFR § 270.42(b)(6)(iii). Based on the authority granted by this modification the facility



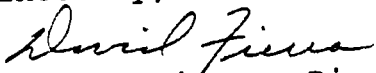
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is permitted to manage only those newly-listed carbamate wastes as indicated above and listed in the facility's revised part A application. This is in addition to any other wastes that the facility is currently permitted to manage in accordance with the Part B permit. This approval only serves to modify those conditions specifically stated in this approval letter, all other permit conditions remain the same.

The action to list these carbamate wastes is taken pursuant to Sections 3001(e)(2) and 3001(b)(1) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6921(e)(2) and 6921(b)(1), as further amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6901 et. seq. Section 3006 of RCRA provides EPA with the authority to issue permits for any new requirements and prohibitions until a State is authorized to do so. That section provides that in an authorized State (i.e., Connecticut) the Administrator "shall have the authority in such State to issue or deny permits or those portions of permits affected by the requirements and prohibitions established by the Hazardous and Solid Waste Amendments of 1984". This situation continues until the State revises its program pursuant to 40 CFR § 271.21 to add the wastes to its regulated universe and receives EPA's approval. The facility should be aware, however, that this approval does not relieve it of any responsibility to comply with any other applicable Federal, State or local regulations or requirements.

Should you have any questions regarding this approval please contact Sharon Leitch in the Hazardous Waste Program Unit. She may be reached at (617)565-4879.

Sincerely,



David A. Fierro, Director  
Office of Ecosystem Protection

cc: Kevin McSweeney, Associate Director of Waste Policy, EPA-OEP  
Gary Gosbee, Chief, Hazardous Waste Program Unit, EPA-OEP  
John Hackler, Chief, Connecticut Program Unit, EPA-OEP  
David Nash, Director, Bureau of Waste Management, CTDEP  
David Satler, Supervisor, CTDEP



38-B Industry Avenue  
Springfield, MA 01104

Phone: 413-734-3399  
FAX: 413-734-3475

Kevin McSweany,  
Associate Director for Waste Policy  
US EPA Region 1, mail code CAA  
JFK Federal Building  
Boston, MA 02203

RE: Mercury Containing Lamp Recycling Operations

Mr. McSweany:

Per a conversation with Lisa Papeti, Region I of the United States Environmental Protection Agency (USEPA), and Bill Sirull, of the Massachusetts Department of Environmental Protection (DEP), regarding a mercury containing lamp recycling operation, it was suggested that you be notified of Alta Resource Management Services, Inc.'s (ALTA) intention to perform full scale lamp recycling services.

The DEP has indicated that ALTA is operating consistent with the Code of Massachusetts Regulations (CMR). ALTA has been advised by the DEP that the USEPA may have different or additional requirements for the management of used intact mercury containing lamps going for recycling. ALTA's goal is to comply with all regulatory authorities.

For background purposes, the USA Lights Fluorescent Lamp Processing System purchased by ALTA, will be used to separate mercury containing hazardous components from non-hazardous components contained in fluorescent and HID lamps. ALTA has made several operating modifications to the equipment to enhance the mechanical operations of the equipment at a significant cost to ALTA.

The system, which operates under a negative pressure, breaks the lamps and crushes the components. The components are then separated into the aluminum, ferrous and non-ferrous metals, glass, and phosphor powder. The equipment has the capability to process 2500 lamps per hour.

Random samples for each of the components are taken and TCLP tested. The phosphor powder is sent to a fully permitted mercury recycling facility for reclamation.

Mercury vapor and phosphor dust released from the lamps during crushing and material separation is captured by the system's continuous duty carbon dust/vapor collection system. The environment and venting are monitored twice per operating shift utilizing a Jerome mercury monitoring analyzer.

Mercury emissions to the atmosphere are designed to be  $< 1 \text{ mg/m}^3$  (99.995% mercury removal efficiency). This result is based on a particulate and mercury emission engineering test on the glass processor filter system at the USA Lights facility in St. Paul, Minnesota, on August 23, 1994, as conducted by Pace Incorporated. Data is on file at ALTA for USEPA review. Interior air is re-circulated through a closed system consisting of five filtered inlets and ten carbon filters before being exhausted back into the room. This allows any escaped mercury vapor and



88-B Industry Avenue  
Springfield, MA 01104

Phone: 413-734-3399  
FAX: 413-734-3475

phosphor powder to be filtered out of the processing area. All used filters and carbon filters are sent off site for retort.

ALTA was founded on the premise that in order to differentiate ourselves within the marketplace we would not only comply with, rather, implement mechanisms to exceed the regulations. ALTA finds itself in a difficult position in regards to our goal. The regulations seem to vary across the different regulatory authorities. While ALTA has constructed its facility and procedures to exceed the most stringent regulations, we would like to seek guidance on how the Region views the regulations that ALTA is required to comply with now and in the future.

For instance, should ALTA allocate the resources and spend the significant amount of time and money applying, and getting approval for a Massachusetts Class A or C recycling permit now? Will that be required in the future? ALTA's resources are limited and we obviously want to show prudence in our allocation of these resources.

ALTA understands that the Northeast Waste Management Officials' Association has been created to foster an environment where the six New England states, New York, and New Jersey can work together in developing a complimentary approach for state implementation of the EPA universal waste rule. Further, that the USEPA is aware that each State's regulations within Region I are currently different in relation as to how the used intact mercury containing lamps are handled, and therefore, ALTA respectfully requests that Region I defer the issues of the handling of the mercury containing lamps to the State level.

It would be optimal for these issues to be resolved with the MADEP's involvement so both regulating parties and ALTA will know exactly how to proceed. We are prepared to meet with the Region (perhaps jointly with the MADEP) to discuss these issues further.

Please do not hesitate to contact me for any additional information.

Thank You

David J. Leishman  
President

cc: John DeVillars  
Commissioner Struhs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

May 31, 1996

Michael J. Mains, Environmental Compliance Manager  
KTI Environmental Group, Inc.  
110 Main Street, Suite 1308  
Saco, ME 04072

Re: MWC Ash/Maine Energy Recovery Company

Dear Mr. Mains:

This is in response to your letter dated May 3, 1996, in which you request an "advisory opinion" as to the adequacy of the Maine Energy Recovery Company's facility ash sampling and analysis plan relevant to the proposed guidance from the EPA.

EPA is not in a position to evaluate the sampling and analysis plan you refer to since we currently have no jurisdiction over the ash as a RCRA Subtitle C waste. The history behind this issue may help to clarify our position.

The Supreme Court issued an opinion on May 2, 1994, which held that ash generated at resource recovery facilities (i.e waste-to-energy facilities burning household hazardous waste and non-hazardous commercial wastes) that exhibits a hazardous waste characteristic is not exempt from the hazardous waste requirements of RCRA Subtitle C. In response to this decision EPA-New England notified the effected facilities in the region and requested that they test their ash to determine if it exhibited a hazardous waste characteristic. All of the effected facilities at that time responded to our request, including the Maine Energy Recovery facility, and it was determined that none of the ash from these facilities exhibited a hazardous waste characteristic.

It is the responsibility of the person who generates a solid waste to determine whether the waste is a hazardous waste following the procedures outlined in 40 CFR Part 261. So long as the ash continues to test non-hazardous RCRA Subtitle C does not apply. The State of Maine, however, does regulate the ash. We suggest that you consult with them regarding the specifics of their regulations.



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Should you have any questions regarding the above please contact me at (617)565-4879.

Sincerely,



Sharon M. Leitch, Environmental Engineer  
Hazardous Waste Program Unit

cc: Gary Gosbee, Chief, Hazardous Waste Program Unit, EPA  
Stacey Ladner, Remediation & Waste Management, MEDEP  
Steve Silva, Chief, Maine State Program Unit, EPA

FILE COPY

Gary



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
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APR 2 1996

Mr. James V. Surwilo  
Agency of Natural Resources  
Department of Environmental Conservation  
Waste Management Division  
103 South Main Street  
Waterbury, Vermont 05671-0404

Dear Mr. Surwilo:

This letter is in response to your letter of February 3, 1996, to Ms. Betsy Davis concerning possible revisions to Vermont's Solid Waste Management Rules and how those revisions might affect the previous Adequacy Determination made by EPA.

In your letter you made reference to Section 239.12 of the draft and asked if it had been finalized. On January 26, 1996, EPA published as a proposed rule (61FR2584) Subtitle D Regulated Facilities; State/Tribal Permit Program Determination of Adequacy; State/Tribal Implementation Rule (STIR). I have enclosed a copy for your use. The comment period for this proposed rule ends on April 25, 1996. The proposed rule modifies the earlier draft STIR; however, the Agency does not expect any disruption of previously approved programs.

We agree with your assessment that it may be preferable for Vermont to submit to the Regional Administrator a complete package of all proposed rules. This would allow the Regional Administrator, in accordance with 239.12 (e) the opportunity to make a determination whether the State Director must submit a revised application. If this is necessary, the Regional Administrator will inform the State Director in writing, specifying the required revisions and establishing a schedule for submission of the revised application.

Relative to your brainstorming idea about streamlining the post-closure care process, our initial thought was that this change might not constitute a change that would require a revised application. The final decision would rest with formal notification by the State in accordance with 239.12(d) and our formal response as discussed earlier. However, it appears that Vermont's existing rules in this area are more stringent than the EPA Part 258 provisions and what the State may propose would remain more stringent. If this is the case, a revised application would not appear necessary.



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I apologize for the delay in getting back to you. The Subtitle D STIR Program is a new responsibility for me and I had to research information which took time. Please submit any correspondence relative to this issue to my attention with a copy to Ms. Davis. If you require, additional clarification or assistance please contact me at (617) 565-3725.

Sincerely,



Gary B. Gosbee, Chief  
Hazardous Waste Program Unit  
Office of Ecosystem Protection

enclosure:

cc: Betsy Davis, EPA, OEP, VT Unit  
Kevin McSweeney, EPA, OEP

gary

# FILE COPY



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REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

February 23, 1996

Mr. Robert M. Eaton  
Novacor Chemicals, Inc.  
P.O. Box 5460  
Decatur, AL 35601

Dear Mr. Eaton:

This letter is in response to your April 26, 1995, request to Region I of the Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MA DEP) for a determination of "co-product" status for the "purge monomer" generated at Novacor's Indian Orchard, Massachusetts plant (the facility). We would like to apologize for the delay in responding to your request, the complexity of the issue and our desire to maintain a strong working relationship with the company to reach agreement on the issue have added to the delay.

We believe that since the MA DEP is authorized for the base RCRA program, the State should respond to your request. However, since the MA DEP authorization does not include the HSWA authority to make boiler and industrial furnace closure/permit decisions we shall consider any classification decision made by the State for its impact on our closure/permit authority.

We are aware and supportive of the facility's desire to continue to manage the material on-site and are also aware that the facility does not wish to pursue a RCRA/HSWA Part B permit for the boiler unit. In an attempt to meet the facility's goal we would like to suggest that the following factors would allow the facility to continue to burn the purge monomer. The EPA approved closure plan provides that the facility must initiate closure procedures 180 days from the approval date (May 29, 1996). The facility is currently allowed to burn the purge monomer until that date.

In addition, it is our understanding that the soon to be published proposed combustion rule may include a comparable fuels specification that may be applicable to your situation. If the proposed comparable fuel specification is applicable to the Indian Orchard facility, we would entertain a request from the facility that the closure implementation date be deferred pending final promulgation of the combustion rule referenced above and a review of its applicability to the Indian Orchard facility.

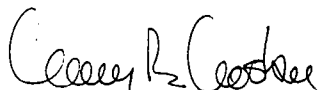


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The facility should realize that future federal, state or local regulations which may be promulgated subsequent to this decision could effect EPA's current position.

Should you have any questions regarding the above or would like to further discuss some of the issues, please give me a call at (617) 565-3725. If you have any questions regarding the closure issues please contact Sharon Leitch of my staff at (617) 565 - 4879.

Sincerely,



Gary B. Gosbee, Chief  
Hazardous Waste Program Unit

cc: Michael Garvey, Novacor-Indian Orchard  
Mark Lesky, Novacor Chemical, Inc.  
Edward McSweeney, EPA-OEP  
Pamela Hill, EPA-ORC  
Suzanne Parent, EPA-OES  
Matt Hoagland, EPA-OSRR  
Steven DeGabriele, MA DEP, Boston Office  
William Sirull, MA DEP, Boston Office  
Loretta Oi, MA DEP, Western Regional Office



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

December 22, 1997

Peter M. Zuk, Project Director  
Massachusetts Highway Department  
Central Artery/Tunnel  
One South Station  
Boston, MA 02110

re: Central Artery/Tunnel (CA/T) Project  
Proposed Treatment Process for Toxicity Characteristic (TC) Soil

Dear Mr. Zuk:

The Hazardous Waste Program Unit of EPA-New England is in receipt of your letter dated December 1, 1997, in which you inform EPA of your intention to implement a process to remove and treat TC-lead contaminated soil from the CA/T Project on a project-wide basis. Implementation of the process is based upon the results of pilot studies performed on 250 cubic yards of TC-lead excavate which successfully demonstrated that all of the TC-lead levels were reduced to levels well below the regulatory limit of 5.0 mg/l. In that letter you state that you intend to treat lead-contaminated soil by applying and mixing a liquid reagent with the TC-soil in order to reduce the leachability of metals by crystal mineralization.

As indicated above, the soil contains lead which may be found at levels that would define it as a hazardous Toxicity Characteristic (TC) waste. The TC rule was promulgated by EPA under the authority of the Hazardous and Solid Waste Amendments (HSWA) and therefore is implemented by EPA in all states until such time that the states become authorized for the rule. The Commonwealth of Massachusetts will be seeking authorization for the TC rule during 1998. The implications of this on your situation would be that if the process is deemed to need a RCRA Part B permit because of the TCLP test, EPA would be the permit issuing authority in states that do not have TC authorization.



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In your correspondence two general treatment scenarios are proposed to implement the previously defined treatment process. These scenarios have been interpreted by the environmental consultants to the CA/T project as being exempt from the RCRA permitting process. The scenarios are as follows: Scenario 1- "Treatment of Confirmed TC-Soil In Situ" proposes to apply the liquid reagent to in-situ soil that exceeds or potentially exceeds the regulatory limit for TC-lead. The reagent will be applied to treat the soil in lifts of 18" to 24" deep. As indicated in the letter, the treatment process occurs almost instantaneously upon application of the reagent and, therefore, when the treated soil is excavated it is no longer considered a RCRA hazardous waste. This treatment scenario, as indicated above, is considered to not need a RCRA permit. EPA agrees with this interpretation since no hazardous waste is being generated under this scenario. Additionally, as indicated in the letter the handling and storage of any treated stockpiled-soil will be done in accordance with the November 1993 Compliance Plan approved by DEP within the AOC ("area of contamination"); Scenario 2- "Treatment of TC-Soil in Tanks and/or Containers" proposes to treat the excavated TC-soil within the identified AOC by applying the reagent to the soil as it is being placed in watertight containers. The treated soil will be stored in the same manner as indicated under Scenario 1. As mentioned previously, this treatment scenario as proposed is considered not to need a RCRA permit. EPA, again, agrees with this interpretation, assuming that the requirements discussed below are met. However, since a hazardous waste is being generated certain generator requirements must in any event be met.

The exclusion from permitting which may apply to your process is found in 40 CFR § 264.1, which states that the requirements of Part 264 - Standards for owners and operators of hazardous waste TSDFs, do not apply to:

A generator accumulating waste on-site in compliance with 40 CFR § 262.34. In connection with such accumulation, the EPA also has determined that permits are not required for generators treating their hazardous wastes in the generators' tanks or containers in conformance with the requirements of § 262.34 and Subparts I or J of Part 265. See 51 Fed. Reg. at 10168 (March 24, 1986), and 40 C.F.R. § 268.7(a)(4).

In order to qualify for this exemption from the permitting requirement, the waste must be treated by the generator and stored for no more than 90 days. In addition, the waste must be treated within tanks or containers as defined in 40 C.F.R. § 260.10. Finally, all parts of your system involved in storing and treating the waste must meet the requirements of 40 C.F.R. § 262.34 and 40 C.F.R. Part 265, Subparts I or J, and

Subparts AA, BB, and CC. In order to be excluded from the permitting requirement, you need to ensure that all of these requirements are met.

Assuming that you do qualify for the exemption from permitting, you must still meet all applicable generator requirements. In removing any soil which is a hazardous waste, you are considered to be generating a hazardous waste, even if it is then rendered non-hazardous by your treatment. The applicable requirements include obtaining an EPA ID number as the generator of a hazardous waste. 40 C.F.R. § 262.12.

In addition, while the treated soil will be non-hazardous if it does not fail the Toxicity Characteristic, it still must meet all applicable land disposal restrictions (LDR). The current LDR treatment standard for lead for this type of waste is 5.0 mg/l TCLP. As a generator treating wastes subject to LDR, you also will be required to develop and follow a written waste analysis plan pursuant to 40 C.F.R. § 268.7(a)(4).

Although an EPA permit will not be required for the treatment process if you meet the requirements stated above, you are reminded that individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, you will need to contact the state for a determination regarding its views on the regulatory status of the treatment process. Since Massachusetts is authorized for the base RCRA program, which includes sections 261, 262, and 264 of 40 CFR, it maintains the authority to make more stringent determinations regarding exclusions.

In summary we believe for reasons previously discussed that an EPA hazardous waste permit will not be required for the above activity under Scenario 2 if you meet the requirements discussed above. However, the Massachusetts Highway Department will be subject to federal generator requirements, including LDR requirements, and also should contact the MADEP to determine if there are provisions that are more stringent or broader in scope than EPA's.

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mary  
Ben  
Robin } F.I.  
I spoke w/ Jeff Fowley  
on 12.9.97. This  
letter was OK w/ him.  
orig - CH Braintree  
cc - Regional Policy  
Competition  
Cathy Carter

Certified Mail - Return Receipt Requested (Z 203 373 649)

December 2, 1997

Mr. Jeffrey Fowley, Associate Regional Counsel  
Office of Regional Counsel (RCA)  
U.S. Environmental Protection Agency  
J.F.K. Federal Building  
Boston, MA 02203

Subjects:  
LDR  
Universal Wastes

Dear Mr. Fowley:

This is to confirm our telephone conversation of December 1, 1997 regarding the applicability of the federal land disposal restrictions (40 CFR 268) to management of Massachusetts universal wastes as defined in the Massachusetts hazardous waste regulations at 310 CMR 30.1000.

The Massachusetts Department of Environmental Protection (MADEP) recently promulgated regulations governing the management of universal wastes (310 CMR 30.1000). In addition to the three categories of waste originally defined as universal waste by the federal universal waste rule at 40 CFR 273 (i.e., batteries, pesticides, and thermostats), the MADEP included two other categories of waste in its universal waste rule: mercury-containing devices and mercury-containing lamps. Pursuant to Subpart G of 40 CFR 273, an individual state may add new waste types not originally included in 40 CFR 273 at the time it develops its own universal waste rule.

It is my understanding that the land disposal restrictions at 40 CFR 268 do not apply to any category of "Universal Waste" defined at 310 CMR 30.1010 during the time that the waste is managed by "Universal Waste Handlers" as defined in 310 CMR 30.1010. Compliance with the land disposal restrictions at 40 CFR 268 only becomes mandatory at the time that any category of universal waste is subsequently managed by a "Destination Facility" as defined in 310 CMR 30.1010.

Please contact me at 781-849-1800 extension 1278 if you disagree with my summation of our conversation.

Yours truly,

  
Peter W. Egan  
Corporate Compliance Manager

cc: James Patterson, MADEP

cc (1) S. W. Goshore  
(1) Suzanne Fowley

fy  
JG



Massachusetts Highway Department  
Central Artery/Tunnel

S. Leetch, EPA

December 1, 1997

Mr. Kevin McSweeney  
Associate Director of Waste Policy  
U.S. Environmental Protection Agency - Region I  
John F. Kennedy Federal Building  
Boston, MA 02203

Subject: Central Artery/Tunnel (CA/T) Project  
Proposed Treatment Process for Toxicity Characteristic (TC) Soil

Dear Mr. McSweeney:

As indicated in the enclosed approval letter from the Massachusetts Department of Environmental Protection (DEP), dated September 2, 1997, the CA/T Project recently conducted a pilot study on a process to treat soil which would otherwise require disposal as RCRA hazardous waste due to failure of the Toxicity Characteristic (TC) Leaching Procedure for Lead. The treatment process in question involves applying and mixing a liquid reagent with the TC-soil in order to reduce the leachability of metals by crystal mineralization. The pilot study, which was conducted on 250 cubic yards of TC-lead excavate, was overseen by Camp Dresser & McKee, Inc. (CDM), as the environmental consultant to the CA/T Project. The study successfully demonstrated that all of the TC-lead levels were reduced to well below the regulatory limit of 5 mg/l.

The CA/T Project is aware that EPA has not delegated authority under RCRA to DEP to regulate the federal requirements for TC-waste and, therefore, the proposed treatment of TC-soil is subject to both federal and state oversight. As such, staff from the CA/T Project (i.e., Massachusetts Highway Department and Bechtel/Parsons Brinckerhoff), CDM, and DEP met with EPA on September 8, 1997 to discuss the general requirements of the treatment permitting process under RCRA. Since this meeting, the CA/T Project has evaluated numerous options for implementing the proposed treatment process and has identified two general scenarios which conform to the procurement and contracting requirements of the Project. It is the interpretation of CDM that these two treatment scenarios, which are described in detail below, are both exempt from the RCRA permitting process.

As directed by Mr. Gary Gosbee of EPA at the meeting of September 8th, we are writing to officially inform your office of the CA/T Project's intention to implement the treatment of TC-Lead soil on a Project-wide basis based on the results of our pilot study and the specific details of the two proposed implementation scenarios.

COPY



**Massachusetts Highway Department**  
**Central Artery/Tunnel**

December 1, 1997

Mr. Kevin McSweeney

Page 2 of 4

It is important to note that CDM's evaluation of the regulatory impacts of the treatment process is consistent with the "area of contamination" (AOC) approach as implemented by DEP for the CA/T Right-of-Way in its management of the Project under the Massachusetts' Superfund Program (c. 21E/MCP) as described in the May 21, 1997 DEP/MHD Memorandum of Understanding (MOU, a copy of which is attached. As you are aware, treating the CA/T Right-of-Way as a single AOC was discussed between DEP and EPA during the early stages of the Project and was agreed upon as a prudent soil management practice. Further, DEP concurs with the treatment proposals described below and will oversee characterization, transportation, and disposal of all CA/T soil, including treated soil, per standard practice for the CA/T Project.

***Scenario 1 - Treatment of Confirmed TC-Soil In Situ***

Under Scenario 1, the treatment process will be used on in-situ soil that has previously been confirmed as exceeding, or potentially exceeding, the regulatory limit for TC-lead. The liquid reagent will be applied to the surface of the contaminated area to treat lifts of 18" to 24" deep. Because the treatment process occurs almost instantaneously upon application of the reagent, as the treated soil is excavated it is not considered a RCRA waste. As each lift is removed, it will be stored on-site within the CA/T Project Right-of-Way (i.e., the AOC). In cases where there is a sufficient stockpile area, the material will be placed on and covered by polyethylene sheeting in the area directly adjacent to the excavation. In cases where there is no stockpile area, the treated soil will be transported in lined truck trailers over a designated truck route to a central CA/T storage location within the AOC under a DEP approved Internal Material Transport Record (IMTR) process. At the central storage location, the soil will either be stored in watertight containers or in stockpiles which are on and covered by polyethylene sheeting. Even though the treated soil is not a RCRA waste, management of the soil stockpile will be consistent with the November 1993 Compliance Plan (copy enclosed) approved by DEP. The soil will then be analyzed for disposal and/or reuse purposes in accordance with the testing requirements indicated in the May 9, 1997 MOU, which includes testing for total and TC metals. After testing is complete, all treated material will be transported to an appropriate off-site disposal/reuse facility under a DEP-approved Bill-of-Lading.



Massachusetts Highway Department  
Central Artery/Tunnel

December 1, 1997

Mr. Kevin McSweeney

Page 4 of 4

The CA/T Project, with DEP's concurrence, intends to implement the proposed treatment process on TC-Lead soil (following Scenario 1 or Scenario 2 as applicable) on a Project-wide basis. If you have any questions regarding the information presented herein or if you disagree with our consultant's interpretation, please contact Ms. Gloria A. Fry of MHD at (617) 951-6132.

Sincerely,

MASSACHUSETTS HIGHWAY DEPARTMENT

*[Signature]*  
To Peter M. Zuk  
Project Director

AL-1.7  
097-2395

Enclosures:

1. May 21, 1997 DEP/MHD Memorandum of Understanding
2. DEP Letter Regarding TC-Lead soil Treatment Process, dated 9/2/97  
Compliance Plan for Management of RCRA Hazardous Waste and  
Potential RCRA Hazardous Waste Soil, CA/T Project

cc: G. Gosbee - EPA  
S. Leetch - EPA  
S. Lipman - DEP  
J. Carrigan - DEP  
C. Wasserman - DEP

COPY



**Massachusetts Highway Department**  
**Central Artery/Tunnel**

December 1, 1997

Mr. Kevin McSweeney

Page 3 of 4

As discussed previously, it is our environmental consultant's interpretation that a permit is not required for the treatment process addressed in Scenario 1. Based on the knowledge of the CA/T TC-waste from the treatability study, it is recognized that as the material is excavated it will already have undergone in-situ treatment and will not be a hazardous waste as defined by RCRA.

***Scenario 2 - Treatment of TC-Soil in Tanks and/or Containers***

Under Scenario 2, the treatment process will be used on excavated soil within the AOC that is confirmed as exceeding, or potentially exceeding, the regulatory limits for TC-Lead. The liquid reagent will be applied to the soil as the soil is being placed in watertight containers (either lined roll-off boxes or lined truck trailers). As discussed earlier, the treatment process will occur in the container almost instantaneously. Therefore, as soon as the soil is treated in a container, it is not considered a RCRA waste. The treated soil will then be transported over a designated truck route to a central CA/T storage location within the AOC under an IMTR and will be stored in the same manner as discussed in Scenario 1. The soil will then be analyzed for disposal and/or reuse purposes in accordance with the testing requirements indicated in the May 9, 1997 MOU, which includes testing for total and TC metals. After testing is complete, all treated material will be transported to an appropriate off-site disposal/reuse facility under a DEP-approved Bill-of-Lading.

Again, it is our environmental consultant's interpretation that a permit is not required for the treatment process addressed in Scenario 2. As described above, the process will be conducted on-site in containers, in accordance with applicable federal regulations. It is acknowledged that the treatment must also conform with the requirements of 40 CFR. Based on the knowledge of the CA/T TC-waste from the treatability study, it is concluded that no soil will be moved outside of the AOC until treatment is complete and the soil no longer meets the definition of a RCRA waste.

Y9152



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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BOSTON, MASSACHUSETTS 02203-0001

October 6, 1997

Anthony Reed, EH&S Manager  
Pioneer Plastics  
1 Pionite Road  
P.O. Box 1014  
Auburn, ME 04211-1011

Dear Mr. Reed:

Recently, Ken Rota of my staff, received a telephone call from Frank Conti, a representative for American International Group (AIG), the insurer for Pioneer Plastics Corporation (Pioneer). Mr. Conti inquired about Pioneer's current regulatory status as it pertains to the distillate treatment tank and fume incinerator in operation at the facility. According to Mr. Conti, representatives from Pioneer informed him that this unit was a totally enclosed treatment system. I am writing to tell you that, based upon our inspection of your facility last year, we informed Mr. Conti that EPA does not consider this process to be a totally enclosed treatment process. Both Ken Rota and Kate Anderson, a senior environmental scientist and national expert, at EPA Headquarters in Washington D.C. reviewed the process information last year and determined that the system is not totally enclosed as designed and operated. Our office discussed this determination with Richard Hall, the former Environmental Health and Safety Manager for Pioneer and Bruce Nicholson, the attorney representing Pioneer in this matter.

As the new corporate environmental manager, I believe it is important that you have accurate information to assist you in your regulatory endeavors at Pioneer. To briefly provide you with some background concerning this matter, EPA conducted a partial inspection at Pioneer on April 29, 1996, to review the design and operation of the distillate treatment system and Thermo-Oxidizer used on-site. This inspection was based, in part, on schematic drawings of the distillate treatment system provided by Pioneer that indicated that this unit was operating as and subject to the Boiler and Industrial Furnace (BIF) regulations. At the time of the April inspection, EPA determined that the schematics were incorrect and observed that Pioneer had modified the resin production operation in a manner that removed the volatile organic constituents during the production phase of the manufacturing process and not as part of a waste treatment process as indicated on the schematics. This modification occurred several months prior to EPA's April inspection. During the time period prior to this process modification, Pioneer would have been subject to the BIF regulations since the volatile organic emissions burned at that time were derived from the treatment of hazardous wastes collected in the distillate tank and not as a result of gaseous emissions removed directly from the production process. However, as a result of the process change, Pioneer eliminated this obligation. Gaseous emissions removed directly from the production process and not as a result of waste treatment processes are not regulated under RCRA.

As a separate point, note that the totally enclosed treatment advisory opinion rendered by the Maine Department of Environmental Protection's Air and Hazardous Materials and Solid Waste Control



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Bureau is not correct. This determination is based on our physical inspection of the treatment system. The Maine DEP informed EPA that their decision had been based upon written representations made by Pioneer and was not a result of any physical walk-through of the facility by their office that could have confirmed the accuracy of the information contained in Pioneer's regulatory interpretation request letter.

During Mr. Hall's tenure as the Corporate Environmental Health and Safety Manager, a followup letter was written to EPA dated July 12, 1996 by Mr. Nicholson. This letter contained information that my office was requesting about the processes conducted at Pioneer. Included with this letter were Mr. Nicholson's interpretations of regulations as he felt they applied to Pioneer's operations. The letter raised issues regarding whether the distillate treatment system was totally enclosed treatment and the applicability of the Land Disposal Restriction (LDR) regulations to the waste distillate. Neither this letter nor the information submitted by Mr. Nicholson has changed EPA's position in this matter.

The Agency feels that the language of the regulations and existing regulatory interpretations are clear with respect to Pioneer's regulatory obligations. However, to provide closure in this matter I will address the applicability of the LDRs regulations to your distillate wastes after neutralization. It is our position is that the waste distillate is subject to the LDR regulations. Although the treatment of this corrosive waste occurs in a tank from which no land disposal occurs, this material is further treated on-site in the Thermo-Oxidizer and produces an ash that is collected and land disposed at a Subtitle D facility. The LDR regulations are applicable to solid waste by statute. Therefore, an LDR determination for the waste distillate is necessary to determine whether this ash might contain hazardous constituents requiring further treatment prior to disposal. This situation is no different than when hazardous wastes manifested off-site for treatment, both characteristic and listed, are required to have LDR determinations accompanying LDR notifications to ensure that both the wastes and any resulting residues receive adequate treatment prior to land disposal.

The July letter also referenced the September 25, 1992 decision of the U.S. Court of Appeals in Chemical Waste Management v. EPA, 976 F.2d 2 (D.C. Cir. 1992). Specifically, your attorney referenced a situation in which LDR wastes were treated in tanks and discharged directly to surface waters or to Publicly Owned Treatment Works (POTWs) and stated that the court determined that such treatment was not subject to LDRs since no land disposal occurred. Mr. Nicholson suggested that EPA should view the neutralization of Pioneer's corrosive waste in its distillate tank in the same manner. We do not consider this situation to be analogous to Pioneer's activity since there is an important distinction that should be recognized by the court's decision. Specifically, the surface water discharges and discharges to POTWs referenced by the court in the case are regulated by EPA under the authority of the Clean Water Act. In Pioneer's particular situation, although no "disposal" occurs during the neutralization process, the further treatment of this waste by the Thermo-Oxidizer results in an ash that is a solid waste still regulated under RCRA. This ash, unlike the water discharges referenced in the court case above, is land disposed. Despite this distinction, no evidence of underlying hazardous constituents was found in the waste analysis information provided to EPA for the neutralized distillate that might require further treatment.

Good luck in your new duties as corporate environmental manager. If you have any further questions in this matter, please call Ken Rota of my staff at (617) 565-3349.

Sincerely,

A handwritten signature in dark ink, appearing to read 'S. Parent', written in a cursive style.

Suzanne M. Parent, Chief  
RCRA Compliance Unit

cc: Bruce Nicholson, Erler and Powers  
Michael Hudson, ME DEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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September 22, 1997

Franklin D. Sales, Vice President  
Consolidated Recycling, Inc.  
P.O. Box 1233  
Amherst, NH 03031

Re: Fluorescent lamp storage

Dear Mr. Sales:

This letter is in response to your letter of August 7, 1997, in which you request approval or acknowledgment of the fluorescent lamp storage requirements of Consolidated Recycling, Inc. (the "facility"), a proposed recycling facility to be located in Fitchburg, Massachusetts. In that letter you indicate that the facility would need to store fluorescent lamps for at least 10 days or 240 hours. You indicate that this storage time is necessary in order to compensate for transit time and consolidation of lamps in various parts of the United States. This would result in the storage of approximately 220,000 lamps or 5 tractor-trailer loads. The letter also states that the facility will be applying for a Class C Recycling permit upon promulgation of the Universal Waste Rules of the Commonwealth of Massachusetts in the very near future.

Under currently effective federal hazardous waste regulations the storage of hazardous waste for 10 days without a RCRA Part B storage permit is not acceptable. EPA-New England maintains the position that the continued establishment of environmentally sound recycling processes should be supported. Lamps that are stored for 10 days prior to being processed have a greater probability of breakage resulting in the discharge of hazardous waste to the environment and an increased likelihood of human exposure to mercury. The EPA has previously reviewed a similar facility operation where the storage of lamps does not occur. EPA indicated in that situation that an accumulation time period of 48 hours as allowed by MADEP under their Class C Recycling permits for the off-loading, inspection and processing of fluorescent lamps for recycling is an appropriate amount of time.



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Franklin D. Sales  
Page 2  
September 22, 1997


On May 11, 1995 (60 FR 25492), the Agency promulgated the Universal Waste Rule (UWR). The rule creates a framework for, among other things, the collection of several categories of hazardous waste for recycling. The streamlined regulatory requirements apply to hazardous waste batteries, certain pesticides, and mercury-containing thermostats. The UWR also creates a procedure for states to add additional wastes, such as mercury-containing lamps, to the previously listed hazardous wastes. The UWR is currently not effective in Massachusetts. However, our understanding is that the MADEP will apply to operate the UWR during 1997, and it is our hope that EPA will be able to promptly approve its application. We also anticipate that Massachusetts will simultaneously be applying for approval to administer the Toxicity Characteristic (TC) Rule, thus enabling the State to treat fluorescent lamps as universal waste. However, we do not anticipate that approval of the UWR will change the requirements for recyclers. That is, 10 days storage at a recycling facility will continue to require a RCRA Part B storage permit.

Under Section 3006 of the Resource Conservation and Recovery Act (RCRA), EPA may authorize qualified states to administer and enforce the RCRA program within the State. Following authorization, EPA retains enforcement authority under sections 3008, 3013 and 7003 of RCRA, although authorized states have primary enforcement responsibility. The Hazardous and Solid Waste Amendments of 1984 (HSWA) were established to significantly expand the scope and requirements of RCRA. New requirements and prohibitions imposed by HSWA take effect in authorized States at the same time they take effect in nonauthorized States. EPA is directed to carry out HSWA requirements until the State is granted authorization to do so. The TC rule is a HSWA requirement. Prior to HSWA, a State with a final authorization administered its hazardous waste program in lieu of EPA administering the Federal program in that State. The Universal Waste Rule is a non-HSWA rule and is therefore not effective in an authorized State until they receive authorization from EPA.

Franklin D. Sales  
Page 3  
September 22, 1997

We hope the above answers your questions. Should you have any additional questions please contact me at (617)565-3559 or Gary Gosbee at (617)565-3725.

Sincerely,

  
Edward K. McSweeney  
Associate Director of Waste Policy

cc: Steven A. DeGabriele, Director, MADEP  
Bill Sirull, MADEP  
Gary Gosbee, EPA-OEP  
Suzanne Parent, EPA-OES  
Jeff Fowley, EPA-ORC  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Supervising Engineer, RIDEM  
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP  
S. Simoes, Waste Management Division, VTDEC



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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July 25, 1997

Mr. P. Howard Flanders, Director  
Waste Management Division  
Vermont Department of Environmental Conservation  
103 South Main Street/West Building  
Waterbury, VT 05671-0404

Re: Contained-In Waste Determination, Windsor School Site, Windsor, Vermont

Dear Mr. Flanders:

I am pleased to respond to the letter of June 18, 1997 in which you request EPA's assistance for a "contained-in" determination for media contaminated with an F032 waste. As you explained in your letter, Vermont has not yet adopted the F032 waste listing in its Hazardous Waste Management Regulations and cannot make a "contained-in" determination for this particular waste as outlined in an EPA OSWER policy letter dated September 15, 1995. The letter states in part that "In order to make contained-in determinations, a State must only be authorized for the part of the base program under which the waste of concern is identified as hazardous". The OSWER letter outlines the parameters for making a contained-in determination in most situations.

On July 9, 1997, a meeting was held between representatives of VTDEC and EPA to discuss the issues concerning the Windsor site remediation approach and to clarify the wastes to be included in the contained-in determination. A follow-up correspondence dated July 14, 1997 was received from George Desch of your office that summarized the proposed remediation approach, proposed cleanup standards, and the wastes to be included in the contained-in determination.

**Site Information**

Based on information provided, the site was the location of the former Windsor State Prison in Windsor, VT and is currently owned by the Windsor School District. Contamination at the site was discovered in August 1995. The contaminated media at the site contains pentachlorophenol (PCP), dioxin, and kerosene compounds. The contamination resulted from wood preserving activities (log dipping tanks) which occurred at the former State Prison. The logs were dipped in mixture of PCP and kerosene. The dioxin is presumed to be a co-contaminant resulting from the manufacture of the PCP. Contaminants are contained in groundwater, subsurface and surface soils, and a soil pile which was generated during construction of the school located near the site.



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Since the discovery of the contamination, VTDEC has overseen a Remedial Investigation (RI), Risk Assessment (RA), and Corrective Action Feasibility Investigation (CAFI) at the site. A summary of the site investigation as well as a proposed remedial plan for the contaminated soil and cleanup standard has been developed for the site and is discussed below.

The site investigation results indicated that the highest levels of contaminants found at the site was 910,000 ppb (parts per billion) for PCP and 9001 ppt (parts per trillion) for dioxin. The area with the highest contamination levels has been fenced off. The soil pile is located southeast from the fenced off area. The existing soil pile has low levels of dioxin and PCP in it. The soil pile is estimated to contain 2,000 cubic yards of soil. The contaminant levels in the soil pile averaged 45 ppb PCP and 220 ppt TEQ dioxin, with a maximum concentration of 200 ppb PCP and 501 ppt TEQ dioxin, respectively.

Based on discussions between staff members of VTDEC and EPA, it was determined that for purposes of the Contained-In Waste Policy, a direct contact standard of 1 ppb TEQ for dioxin is acceptable as a soil cleanup standard. This value is based on the EPA's default risk value for dioxin contaminated soils and equals a risk for residential exposure of  $10E-4$ . The VTDEC indicated at the meeting that this value is acceptable.

The preliminary efforts by VTDEC on the site specific SESOIL and AT123D modeling indicated a soil cleanup level for pentachlorophenol (PCP) of between 0.6 and 2.5 ppm at two different compliance points down gradient of the contaminated soil area. These results are based on removing all soils above this value in order to improve groundwater contaminant levels to below MCLs within the next 70 years if no other remedial approach is implemented to improve groundwater quality in a shorter time frame. Currently, using only natural attenuation of groundwater, groundwater is predicted to remain contaminated above MCLs for many hundreds of years, perhaps even a thousand. Based on the results of this modeling, the conditions at the site, and the detection limit of laboratory and field lab equipment, a proposed cleanup standard of 1 ppm for PCP in soil was agreed upon. Therefore, the proposed remedial standard for PCP in unsaturated soil and long term improvement of groundwater quality is 1 ppm.

The proposed remediation plan includes removing all soils above the proposed cleanup standards of 1 ppb TEQ dioxin and 1 ppm PCP and disposing of these soils at an EPA permitted hazardous waste facility. This includes removing soils in the fenced off "hot spot" area of approximately 80 by 120 feet down to 2 feet, and an area of approximately 60 feet by 60 feet with a depth down to approximately 12 feet. This amount of soil represents an estimated volume of 2,000 cubic yards to be removed and disposed of at a hazardous waste landfill.

Since groundwater is at an average depth of 6 feet below ground surface, groundwater will need to be withdrawn from the ground to make excavation easier and to lighten the weight of the soil. The groundwater will be pumped from the ground and treated before

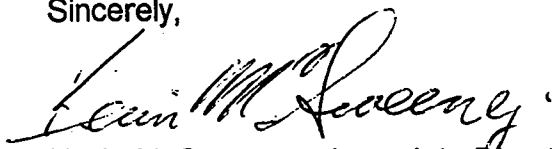
### **Contained-In Policy Determination**

Its our determination that unsaturated soils and groundwater at the Windsor site will be considered to no longer contain F032 hazardous waste providing the following occur.

1. The proposed remedial standards of 1 ppb TEQ dioxin and 1 ppm PCP are implemented in the proposed remediation plan which is outlined above.
2. The F032 waste soils above the remedial standards of 1 ppb TEQ dioxin and 1 ppm PCP generated from this remediation plan and sediments generated from the groundwater pump and treatment process will be disposed at a hazardous waste facility that is in compliance with Federal and State regulations.
3. Soils from the existing soil pile and from the excavation that are found to be below the remedial standards of 1 ppb TEQ dioxin and 1 ppm PCP may be placed back into the excavation and are located below a two foot minimum clean fill soil cap. The soil cap with a minimum thickness of two feet of clean fill from off-site will be placed on top of the excavated area. The VTDEC will make provisions to ensure that the integrity of this soil cap is maintained.
4. Fugitive emissions generated during the remediation process will be properly controlled.
5. Appropriate institutional controls are to be placed in the land records that will control groundwater exposures, future development and restricted the use of this site.

If you should have any questions concerning the contents of this letter, please do not hesitate to contact Betsy Davis of the Vermont State Unit at (617) 565-3481, Stephen Yee of the Hazardous Waste Program Unit at (617) 565-3550, or me at (617) 565-3559.

Sincerely,



Kevin McSweeney, Associate Director  
Waste Policy  
Office of Ecosystem Protection

cc: George Desch, VTDEC  
Peter Marshall, VTDEC  
Lynne Hamjian, EPA  
Matt Hoagland, EPA  
Gary Gosbee, EPA  
Patricia Meaney, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
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BOSTON, MASSACHUSETTS 02203-0001

June 3, 1997

Stephen E. Pozner, Senior Vice President  
Global Recycling Technologies, Inc.  
387 Page Street  
Stoughton, MA 02072

Re: Regulation of <sup>FLUORESCENT LAMPS</sup> mercury bearing lamps

Dear Mr. Pozner:

This is in response to your letter of February 4, 1997, in which you request a written response from EPA, Region I on two particular questions. The following constitutes Region I's response to those questions.

Your first question states: "Can mercury bearing lamps, that fail the TCLP analytical test for mercury, be shipped from the site of generation to an off-site facility that does not meet the definition of 'designated facility' (40 CFR 260.10)?"

The answer to your question is no, hazardous wastes shipped from the site of generation must be manifested to a designated facility. However, the designated facility may be a recycling facility, not just a treatment, storage or disposal facility.

Hazardous waste determinations are the responsibility of the person who generates solid waste following the procedures outlined in 40 CFR § 262.11. The regulations at 40 CFR Part 262, Subpart B state that generators of hazardous waste shipping waste off-site must prepare a manifest which indicates the final destination of the waste (the designated facility). A designated facility is defined at 40 CFR § 260.10 as

".... hazardous waste treatment, storage, or disposal facility which (1) has received a permit (or interim status) in accordance with the requirements of parts 270 and 124 of 40 CFR, (2) has received a permit (or interim status) from a State authorized in accordance with Part 271 of 40 CFR, or (3) is regulated under section 261.6(c)(2) or Subpart F of part 266 of 40 CFR, and (4) that has been designated on the manifest by the generator pursuant to section 260.20[sic (262.20)]. If a waste is destined to a facility in an authorized State which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility must be a facility allowed by the receiving State to accept such waste".



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Stephen E. Pozner/Global  
June 3, 1997  
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Your second question is as follows: "Does the U.S. EPA consider 'crushing' mercury bearing lamps (that fail TCLP test for mercury) at an off-site facility, who then ships the crushed mercury contaminated powder/glass to a third party for distillation, a 'recycler' as defined in 40 CFR § 261.6(c)?"

The answer to your question is yes, if the crushing operation is part of a legitimate recycling process where no storage or disposal occurs and the mercury contaminated powder/glass is shipped to a third party for distillation. However, an off-site facility which crushes mercury bearing lamps and then manifests the hazardous waste to a permitted treatment, storage or disposal (TSD) facility would be considered a treatment facility treating hazardous waste and therefore would be subject to regulation under 40 CFR § 264.

Hazardous wastes that are recycled are defined by EPA as recyclable materials and are subject to the requirements for generators, transporters, and storage facilities. EPA considers mercury-bearing lamps which are recycled to be recyclable materials. A material is recycled if it is used, reused or reclaimed (see 40 CFR §261.1(c)(7)). Legitimate recycling processes are not subject to RCRA Subtitle C regulation under 40 CFR § 261.6 (c) except as noted in 40 CFR § 261.6(d). (See letter dated 7/28/93 from Jeffery D. Denit, Acting Director, OSW to Mr. D.B. Redington, Monsanto Company).

Of course, the sole act of crushing lamps would not be considered full recycling, the material would then need to be used, reused or reclaimed. In order for a facility doing crushing to maintain a claim that they are a recycler of recyclable materials, it must document what materials are being recycled and that its process is a legitimate step towards recycling. The facility must maintain the records that are necessary to substantiate that full recycling of the material ultimately is occurring, as specified at 40 CFR §261.2(f).

Generators and transporters of recyclable materials are subject to the applicable requirements of 40 CFR part 262 and 263 and the notification requirements of section 3010 of RCRA. Owners and operators of facilities that recycle recyclable materials without storing them before they are recycled are also subject to the notification requirements of section 3010 of RCRA. They are also subject to the requirements of 40 CFR §§ 265.71 and 265.72, which deal with the use of a manifest and manifest discrepancies, and the requirements of 40 CFR § 261.6(d), which states that facilities otherwise subject to the permitting requirements of RCRA that have hazardous waste management units that recycle hazardous wastes are subject to the requirements of subparts AA and BB of 40 CFR part 264 or part 265.

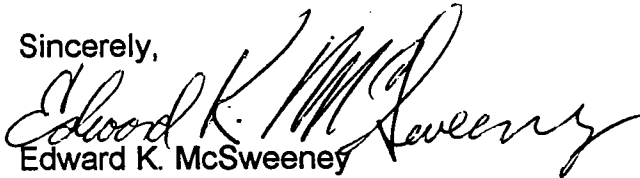
Stephen E. Pozner/Global  
June 3, 1997  
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On May 11, 1995 (60 FR 25492), the Agency promulgated the Universal Waste Rule (UWR). The rule creates a framework for, among other things, the collection of several categories of hazardous waste for recycling. The streamlined regulatory requirements apply to hazardous waste batteries, certain pesticides, and mercury-containing thermostats. The UWR also creates a procedure for states to add additional wastes, such as mercury-containing lamps, to the previously listed hazardous wastes.

The UWR is currently not effective in Massachusetts. However, our understanding is that the MADEP will apply to operate the UWR during 1997 and it is our hope that we will be able to promptly approve its application. We also anticipate that Massachusetts will simultaneously be applying for approval to administer the Toxicity Characteristic (TC) Rule, thus enabling them to treat fluorescent lamps as universal waste. Global Recycling Technologies should carefully review the Massachusetts requirements when they are adopted in order to determine the applicability of the requirements to Global's operations.

EPA-New England maintains the position that the continued establishment of environmentally sound recycling processes should be supported. We hope the above answers your questions. Should you have any additional questions please contact me at 617-565-3559 or Gary Gosbee at 617-565-3725.

Sincerely,



Edward K. McSweeney  
Associate Director of Waste Policy

Enclosure

cc: Steven A. DeGabriele, Director, MADEP  
Bill Sirull, MADEP  
Gary Gosbee, EPA-OEP  
Suzanne Parent, EPA-OES  
Jeff Fowley, EPA-ORC  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Supervising Engineer, RIDEM  
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP  
S. Simoes, Waste Management Division, VTDEC



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

FILE COPY

JUL 28 1993

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Mr. D. B. Redington  
Monsanto Company  
800 N. Lindbergh Boulevard  
St. Louis, Missouri 63167

Dear Mr. Redington:

Thank you for your letter of March 30, 1993, in which you urged the agency to provide an exemption from the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations for fluorescent lamps. You also requested that the agency clarify the regulatory status of crushing fluorescent lamps to recover mercury values. In your letter, you discuss "the need to crush bulbs as the first step toward shipment of the materials to a recycler." You expressed concern that crushing of fluorescent lamps might constitute treatment.

With regard to exempting fluorescent lamps from EPA's hazardous waste regulations, the Agency is currently considering various options for regulating the management of spent lamps. We expect to complete this analysis soon and then publish the selected approach in the Federal Register for public comment. We would very much welcome your comments on that proposal. In the meantime, the following provides guidance on the current regulatory status of crushing of fluorescent lamps.

Generally, recycling of hazardous wastes would be defined as treatment under 40 CFR 260.10. Legitimate recycling processes, however, are not subject to RCRA Subtitle C regulation under 40 CFR 261.6(c) except as noted in 40 CFR 261.6(d). If crushing fluorescent lamps that fail the toxicity characteristic is a necessary part of a legitimate recycling process, it would not be subject to RCRA Subtitle C regulatory requirements except as specified in 40 CFR 261.6(d). The crushing activities may occur at the generator's facility, or at the recycler's facility and remain exempt under 40 CFR 261.6(c). You should be aware that any storage of crushed lamps that fail the toxicity characteristic still would be subject to RCRA Subtitle C regulation (e.g., 40 CFR 262.34 for generator accumulation or 40 CFR Part 264 for other storage).

Also note that spent fluorescent lamps contain a small amount of elemental mercury as well as mercury that is bound to the phosphor powder found inside the bulb. The Agency has little data on the potential hazard of mercury releases from bulb breakage or crushing but we are concerned that crushing may

Page 2 of 2 11758

present a hazard to worker safety. In our proposal regarding the management of spent fluorescent lamps (described above), the Agency will be requesting data on the potential hazard of breaking or crushing mercury-containing lamps.

The Occupational Safety and Health Administration (OSHA) sets standards for maximum exposure limits for mercury in the workplace. These standards are found at 29 CFR Part 1910; there may also be applicable State worker safety requirements. You should ensure that the crushing operations comply with applicable occupational and health standards.

Under Section 3006 of RCRA, individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the Federal program. When a State is not authorized to administer its own program, the appropriate EPA Region administers the program and is the appropriate contact for any case-specific determinations. Please also note that under Section 3009 of RCRA, States retain authority to promulgate regulatory requirements that are more stringent than Federal regulatory requirements.

If you have questions about how the recycling and storage requirements apply to your specific activities, you should contact the State agency (or EPA regional office in a State not authorized to administer the RCRA program) for a site-specific determination.

If you have further questions about RCRA Subtitle C regulatory requirements, please contact Charlotte Mooney or Ann Codrington of my staff at (202)260-8551. If you have questions about the proposal regarding the management of spent fluorescent lamps, contact Valerie Wilson at (202)260-4770. Thank you for your interest in the safe recycling of hazardous waste.

Sincerely,

*Jeffery D. Denit*  
Acting *Jeffery D. Denit*  
Acting Director,  
Office of Solid Waste



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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APR 28 1997

Paul A. Ahearn, Director  
Regulatory Compliance  
Clean Harbors Environmental Services, Inc.  
325 Wood Road  
P.O. Box 327  
Braintree, MA 02184

Re: Corporate Restructuring

Dear Mr. Ahearn:

This is in response to your letter of January 20, 1997, regarding your request for a regulatory interpretation from EPA-New England regarding the Clean Harbors, Inc. (CHI) restructuring program to consolidate several of its wholly-owned subsidiary companies into a single operating entity and its effect on the state of the Federal hazardous waste permit. According to your letter, CHI will be consolidated into a single operating unit known as Clean Harbors Environmental Services, Inc. (CHESI). CHESI currently operates the Clean Harbors fleet of licensed hazardous waste transporters, several waste oil companies, and other related activities. The restructuring program will include one Massachusetts-based facility, Clean Harbors of Natick, Inc. (the facility), which currently holds an EPA-issued HSWA permit.

The regulations which pertain to changes or transfers of the owner or operator of a facility are found at 40 CFR §§ 270.40 and 270.42. The regulations, in essence require that when there is a change in the facility owner or operator the permit must be modified or revoked and reissued to identify the new owner prior to the transfer of ownership. The regulations allow the change to occur by way of a Class 1 modification with prior written approval of the Director (see 40 CFR§ 270.42, Appendix I, A.7.). It is our understanding that Clean Harbors believes that this corporate restructuring does not constitute a "change of ownership" and views this change as a modification which does not require prior written approval.

Based on the information submitted in the January letter and in a subsequent phone conversation you had on March 5, 1997, with Sharon Leitch, of my staff, EPA believes that a Class 1 modification with prior Agency approval would be necessary. In that conversation you indicated that under the current structure, there are separate operators (i.e. CHNI) operating under one company (CHI). Clean Harbors intends to consolidate all operations into one company (CHESI). EPA feels that the restructuring does affect the status of the ownership of the facility and therefore has concluded that



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Paul A. Ahearn, Director  
Clean Harbors Environmental Services, Inc.  
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the change would require a Class 1 modification with prior Agency approval.

In accordance with the regulations at 40 CFR § 270.40(b) the facility must submit to the Director a revised permit application which indicates the new owner or operator no later than 90 days prior to the scheduled change, include documentation indicating the date when the change will take place, indicate that the 40 CFR part 264, subpart H requirements (Financial Requirements) are complied with under the old structure and submit documentation to demonstrate that the requirements will be met under the new structure (CHESI). This demonstration of compliance with the subpart H requirements must be made within 6 months of the date of the change of ownership of the facility.

Clean Harbors should submit a request for a Class 1 permit modification which includes the information responsive to the above requirements (see 40 CFR 270.40(b)) as soon as possible. Upon receipt of the request and following internal review of the information to be submitted the Region will issue a prompt response.

This interpretation only applies to the HSWA portion of the facility permit issued by EPA. You must contact each New England state in which CHESI/CHI has operations to determine if there are provisions which differ from EPA's and may affect the state-issued portion of the permit.

If you have any questions, please do not hesitate to contact me at (617) 565-3725. You may also contact Sharon Leitch, of my staff, at (617)565-4879.

Sincerely,



Gary B. Gosbee, P.E., Chief  
Hazardous Waste Program Unit

cc: K. McSweeney, Associate Director of Waste Policy, EPA  
M. Hoagland, Chief, RCRA Corrective Action Unit  
S. Parent, Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
A. Nardone, Licensing & Permitting, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Supervising Engineer, RIDEM  
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP  
S. Simoes, Waste Management Division, VTDEC



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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January 28, 1997

Christopher T. Lloyd, Director  
NYNEX  
Environmental Operations  
125 High Street, Room 1040  
Boston, MA 02110

Re: Manhole Sediment Stabilization Process

Dear Mr. Lloyd:

This is in response to your letter of September 13, 1996, regarding your request for a regulatory interpretation from EPA New England and for New England wide "approval" for the NYNEX in-line stabilization process for removing and treating sediment from NYNEX manholes. We apologize for the delay in responding to your request, the nuances surrounding the issue and our desire to maintain coordination with the six New England states have added to the delay. While EPA is not in a position to "approve" the treatment process we do offer the following regarding the regulatory implications.

We are aware of the complexity of the situation in which NYNEX finds itself, particularly the need to deal with this issue throughout the New England states and are willing to work with NYNEX in order to facilitate a productive outcome. While the Region supports any process which enhances protection of human health and the environment we are limited in our authority to make a definitive decision regarding this issue. Since each of the New England states are authorized for the RCRA base program, which includes determinations regarding identification and generation of hazardous waste, they maintain the authority to make more stringent regulatory interpretations relating to your situation.

As we understand the situation, NYNEX conducts emergency service operations for its underground cable network. Manholes are typically used to provide access to the underground equipment serviced by NYNEX. According to NYNEX, sediments may accumulate in this underground system over time and, in the course of its emergency operations, require immediate removal. Analytical testing of these sediments conducted by NYNEX has shown that these sediments may, on occasion, exhibit the toxicity characteristic for lead. NYNEX cannot attribute the lead to any single identifiable source. EPA suspects that the potential



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sources of this lead may be due to historical use of leaded gasoline, lead stabilizers contained in telephone cable plastics, etc.

In your letter to EPA, NYNEX identified a process developed for the treatment of the potentially lead-contaminated sediment that may be removed during an emergency service operation. The treatment process described in your letter involved the use of a vacuum truck as the primary method for removing the sediments from the manhole. In NYNEX's process description, two 55-gallon drums are connected "in-line" between the vacuum truck and a section of hose containing the vacuum nozzle. The 55-gallon container closest to the nozzle is used to accumulate the sediments removed during emergency clean out. The purpose of the second 55-gallon container is to provide an emergency backup for the first container in case sediments, accumulated in first container, exceed the capacity of the drum. A schematic of the process shows the hose, used to transfer the potentially lead-contaminated sediments from the manhole into that 55-gallon container, is also used to concurrently transfer the lead treatment chemical into the same accumulation container via a "T" connection in the line. NYNEX provided waste analyses of the sediment that is accumulated in the 55-gallon "in-line" accumulation container after treatment was conducted. The analytical results for this treated waste found that the toxic characteristic for lead was no longer exhibited and the sediment was rendered non-hazardous (less than 5 ppm of leachable lead).

We are aware of NYNEX's need for expedience in dealing with the sediment in emergency service situations. We realize that the sediment in each manhole, of which there are approximately 70,000 throughout the New England states, does not necessarily need to be removed nor does it always exhibit the toxicity characteristic (TC) for lead but that certain service needs do not allow for the turn-around time necessary for testing at each manhole. Therefore, NYNEX currently handles all sediment as a hazardous waste when it is removed from the manholes on an emergency basis and intends to treat this sediment by the above referenced process. Non-emergency service needs do allow for the time necessary to make hazardous waste determinations and therefore, in these situations, only hazardous sediment removed from the manholes would be treated.

Generally, the regulatory implications for a process where a facility treats hazardous waste are that the facility must obtain a RCRA Part B permit unless the treatment process is excluded from permitting requirements or the waste is entirely excluded from regulation under Subtitle C. The applicable federal RCRA regulations include the identification and listing of hazardous wastes, generator and treatment regulations, and land disposal restrictions (LDR), 40 CFR Parts 261, 262, 264 and 268,

respectively.

As indicated above, the sediment contains lead which may be found at levels that would constitute it as a hazardous TC waste. The TC rule was promulgated by EPA under the authority of the Hazardous and Solid Waste Amendments (HSWA) and therefore is implemented by EPA in all states until such time that the states become authorized for the rule. The state of Vermont is currently the only New England state authorized for the TC rule. However, the Commonwealth of Massachusetts will be seeking authorization during 1997. The implications of this on the NYNEX situation would be that if the process is deemed to need a RCRA Part B permit because of the TCLP test, EPA would be the permit issuing authority in states that do not have TC authorization.

The possible exclusion from permitting which may apply to your process is found in 40 CFR § 264.1, which states that the requirements of Part 264 - Standards for owners and operators of hazardous waste TSDFs, do not apply to:

A generator accumulating waste on-site in compliance with 40 CFR § 262.34. In connection with such accumulation, the EPA also has determined that permits are not required for generators treating their hazardous wastes in the generators' tanks or containers in conformance with the requirements of § 262.34 and Subparts I or J of Part 265. See 51 Fed. Reg. at 10168 (March 24, 1986), and 40 C.F.R. § 268.7(a)(4).

EPA believes that your process may qualify for the federal RCRA exclusion for generators accumulating and treating waste on-site. In order to qualify for this exemption from the permitting requirement, the waste must be treated by the generator and stored for no more than 90 days. This appears to be your plan. In addition, the waste must be treated within tanks or containers as defined in 40 C.F.R. § 260.10. Your system as described in your correspondence appears to fall within these definitions. Finally, all parts of your system involved in storing and treating the waste must meet the requirements of 40 C.F.R. § 262.34 and 40 C.F.R. Part 265, Subparts I or J, and Subparts AA, BB, and CC. In order to be excluded from the permitting requirement, you need to ensure that all of these requirements are met.

Assuming that you do qualify for the exemption from permitting, you must still meet all applicable generator requirements. In removing any soil which is a hazardous waste, you are considered to be generating a hazardous waste, even if it is then rendered non-hazardous by your treatment. The applicable requirements include obtaining an EPA ID number as the generator of a hazardous waste. 40 C.F.R. § 262.12.

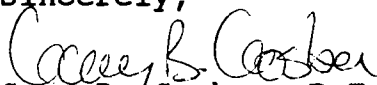
In addition, while the stabilized sediment will be non-hazardous if it does not fail the Toxicity Characteristic, it still must meet all applicable land disposal restrictions (LDR). The current LDR treatment standard for lead for this type of waste is 5.0 mg/l TCLP. As a generator treating wastes subject to LDR, you also will be required to develop and follow a written waste analysis plan pursuant to 40 C.F.R. § 268.7(a)(4).

Although an EPA permit will not be required for the in-line stabilization process if you meet the requirements stated above, you are reminded that individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, you will need to contact each state for a determination regarding its views on the regulatory status of the in-line stabilization process. Since all of the New England states are authorized for the base RCRA program, which includes sections 261, 262, and 264 of 40 CFR, they maintain the authority to make more stringent determinations regarding exclusions.

In summary we believe for reasons previously discussed that an EPA hazardous waste permit will not be required for the above activity if you meet the requirements discussed above. However, NYNEX will be subject to federal generator requirements, including LDR requirements, and also should contact each New England state to determine if there are provisions that are more stringent or broader in scope than EPA's.

If you have any questions regarding this or any other issue, please do not hesitate to contact me at (617) 565-3725. You may also contact Sharon Leitch, of my staff, at (617) 565-4879.

Sincerely,

  
Gary B. Gosbee, P.E., Chief  
Hazardous Waste Program Unit

cc: K. McSweeney, Associate Director of Waste Policy, EPA  
S. Parent, Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
A. Nardone, Licensing & Permitting, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Supervising Engineer, RIDEM  
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP  
S. Simoes, Waste Management Division, VTDEC



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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**January 13, 1997**

**Steven DeGabriele, Director  
Division of Hazardous Materials  
Massachusetts Department of Environmental Protection  
One Winter Street, 7th Floor  
Boston, MA 02108**

**Re: Cellini Purification Systems**

**Dear Mr. DeGabriele:**

**The purpose of this letter is to inform you of an issue regarding EPA and State interpretations of RCRA regulations. The attached memo discusses this issue which was raised at a meeting, at the request of the MADEP Innovative Technologies program, with the EPA and MADEP RCRA programs, the MADEP Industrial Wastewater section, and the EOEA on November 21, 1996, regarding Cellini Purification Systems.**

**Cellini Purification Systems has been working with the State through the Strategic Envirotechnology Partnership (STEP) program. A result of the STEP process was an examination of potential regulatory barriers to the application of the Cellini Controlled Atmospheric Separation Technology (CAST) system. One of the possible barriers identified was the differing EPA and MADEP interpretations of exemptions from RCRA permitting.**

**EPA has had two meetings with the MADEP and EOEA at which the issues were highlighted and proposed solutions developed. EPA's role at these meetings was to provide the federal regulatory interpretation of the RCRA permitting exemptions as they may apply to the Cellini system. The attached memo discusses those interpretations.**

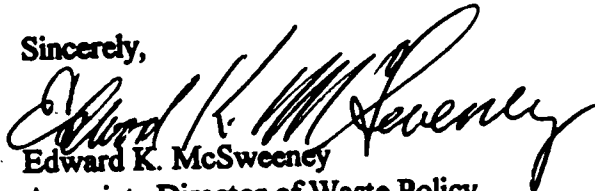
**Since each of the New England states are authorized for the RCRA base program they maintain the authority to make more stringent regulatory interpretations. Individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, while the attached memo discusses the federal RCRA interpretation of the relevant regulations, its application may vary in individual states.**



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Should you have any questions regarding this memo, please contact me at (617)565-3559. You may also contact Sharon Leitch of the Hazardous Waste Program unit at (617) 565-4879 regarding any technical issues associated with this memo or Jeffry Fowley of the Office of Regional Council at (617)565-1475 regarding any legal issues.

Sincerely,

  
Edward K. McSweeney  
Associate Director of Waste Policy  
Office of Ecosystem Protection

enclosure

cc: Gary Gosbee, Chief, Hazardous Waste Program Unit, EPA  
Jane Downing, Chief, Massachusetts State Program Unit, EPA  
Suzanne Parent, Chief, RCRA Technical Unit, EPA  
Jeff Fowley, Office of Regional Council, EPA  
Jim Michael, PSPD, EPA-HQ  
Kathy Nam, OGC, EPA-HQ  
Gina McCarthy, EOE  
Linda Benevides, MADEP  
Jim Miller, MADEP  
Stephen Brown, Cellini Purification Systems, Ludlow, MA  
John Duclos, NHDES  
David Sattler, CTDEP  
Steve Simoes, VTDEC  
Leo Hellested, RIDEM  
Stacy Ladner, MEDEP

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

## MEMORANDUM

DATE: January 13, 1997

SUBJ: RCRA Permitting Exemption For "Zero-Discharge" System  
Manufactured by Cellini Purification Systems

FROM: Jeffry Fowley, Lead RCRA Attorney, ORC Region I

TO: Gary Gosbee, Chief, Hazardous Waste Program Section

NON-CONFIDENTIAL: MAY BE DISTRIBUTED TO STATE AND COMPANY

### I. Introduction

The Commonwealth of Massachusetts is working with five other states to encourage the use of innovative technologies. One of the identified technologies is the Controlled Atmospheric Separation Technology™ ("CAST System") developed by Cellini Purification Systems of Ludlow, Massachusetts. The CAST System will sometimes be used to recycle water and eliminate all wastewater discharges at manufacturing facilities. The State has asked for the Region's view regarding whether the CAST System could be exempted from RCRA permitting when used in this manner. The five possible scenarios for using the CAST System without wastewater discharges are shown (labeled ## 1-5) in the diagram attached to this Memorandum. The State has pointed out that treatment units which have wastewater discharges often are exempted from RCRA permitting pursuant to the "wastewater treatment unit" exemption set out in 40 C.F.R. §§ 264.1(g)(6) and 270.1(c)(2)(v). The State has pointed to an alleged "Catch 22" if the RCRA permitting exemption is lost when the environmentally beneficial step is taken of eliminating all wastewater discharges.

### II. Wastewater Treatment Unit Exemption

The State has suggested that even when the CAST System is utilized so that there are no wastewater discharges, the "wastewater treatment unit" exemption should apply. See 40 C.F.R. § 264.1(g)(6). However, this exemption would not apply if the CAST System was installed in a new manufacturing facility that had never had a discharge regulated under the Clean Water Act. As the EPA clarified in the Federal Register, the exemption applies to certain ongoing operations which produce "no treated wastewater effluent as a direct result" of Clean Water Act requirements, but "is not intended to apply" to treatment units at facilities that "are not required to obtain an NPDES permit." 53 Fed. Reg. 34080-34081 (Sept. 2, 1988). See also Letter from Sylvia K. Lowrance, Director, EPA Office of Solid Waste to Thomas

W. Cervino, P.E., Colonial Pipeline Company, dated January 16, 1992, RCRA Compendium # 9522.1992(01) ("If there was never a discharge to surface waters, then the exemption criteria is not satisfied").

I have not examined whether the wastewater treatment unit exemption would apply to even all uses of the CAST System in existing facilities, since that exemption does not apply in any event to new facilities and thus does not address the State's desire to exempt the CAST System from RCRA permitting across-the-board. Moreover, I need not decide to what extent the wastewater treatment unit exemption might apply since, as explained below, I believe the State's concerns can be addressed in the particular case of the CAST System by use of the "totally enclosed treatment" exemption.<sup>1</sup>

### III. Totally Enclosed Treatment Exemption

The EPA's regulations exempt totally enclosed treatment facilities from RCRA permitting. 40 C.F.R. §§ 264.1(g)(5), 270.1(c)(2)(iv). "Totally enclosed treatment facility" is defined in 40 C.F.R. § 260.10. The State similarly exempts "treatment integral to the manufacturing process" from RCRA permitting, and defines that term in 310 CMR § 30.010.

EPA Engineer Sharon Leitch of the Region's Hazardous Waste Program section and I have examined the following documents regarding the CAST System: (i) Report to EPA on Environmental Technology Initiative Grant, by Massachusetts Department of Environmental Protection, entitled "Zero-Discharge Regulations: Evaporation and Distillation of Industrial Wastewater," Case Study no. 3; and (ii) Memorandum from Stephen Brown, Cellini Purification Systems, Inc. to Sharon Leitch, dated December 18, 1996 ("Cellini Submission") [copy attached]. Assuming that all of the representations contained in those documents are accurate, and subject to the caveats set forth below, the CAST System appears capable of meeting all of the requirements to be considered totally enclosed treatment, when used in the scenarios labeled as ## 1-5 in the diagram attached to this Memorandum:

1. A totally enclosed treatment facility must be "directly connected to an industrial production process." 40 C.F.R. § 260.10. As shown in the diagram attached to this Memorandum, scenarios ## 1-5 all envision the use of the

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<sup>1</sup> Since I believe that the State's concerns can be resolved under the "totally enclosed treatment" exemption, I also am not examining under which scenarios the CAST System would be considered to be closed-loop recycling under 40 C.F.R. § 261.4(a)(8).

CAST System in a manner directly connected to a manufacturing process. In the Cellini Submission, the company has confirmed that it is intended that the CAST System be connected with the manufacturing operation entirely by closed pipes.

2. A totally enclosed treatment facility also must be "constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment." 40 C.F.R. § 260.10. As explained in EPA's Guidance entitled "Totally Enclosed Treatment Facility: Regulatory Clarification," RCRA Compendium # 9432.1983(01) ("Totally Enclosed Guidance"), several requirements must be met to pass this test. First, the treatment facility must be completely contained on all sides. In the Cellini Submission, the company has confirmed that this is how the CAST System is designed. Second, there must be no predictable potential for overflows and spills. For example, the system's tanks and pipes must be made of impermeable materials. The use of such impermeable materials and the many other protections against leaks and spills employed in the CAST System are documented in the attached Cellini Submission.

Finally, the system must be constructed to prevent air emissions. As confirmed in the Cellini Submission, the CAST System is designed to have no air emissions. It has no vented emissions and "CAST systems operate under nearly a full vacuum and hence do not produce any fugitive emissions." Cellini Submission, page 2.

Of course, there is always some possibility, however slight, of leaks and fugitive emissions, from any system. For example, when the CAST System is operated so as to create a product or waste (scenarios ## 2-5 on attached diagram), there could be fugitive emissions when the product or waste is removed from the system. These emissions, however, do not come directly from the treatment operation itself. In any event, while the totally enclosed treatment system exemption has been interpreted narrowly, some carefully designed systems can fall within its terms. The CAST System appears capable of meeting the test that there be "negligible potential" for emissions set forth in the EPA's "Totally Enclosed Guidance," page 7, as well as the more recently expressed tests that the system be designed not to have air emissions and be constructed and operated so as to prevent the release of hazardous constituents "not only on a routine basis but also during a process upset." 55 Fed. Reg. 25454, 25473 (June 21, 1990).

CAVEATS:

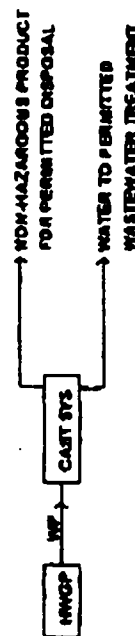
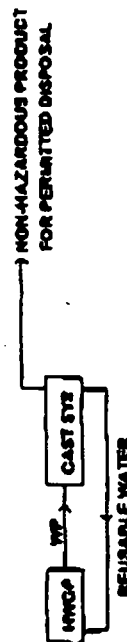
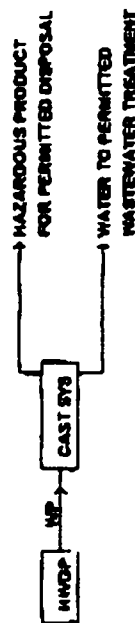
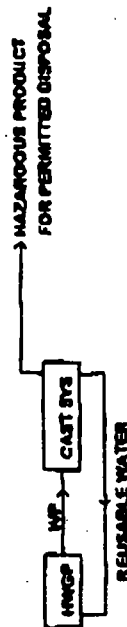
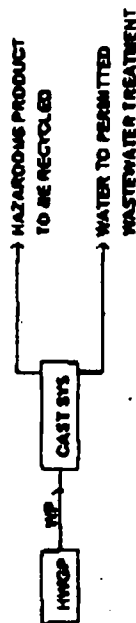
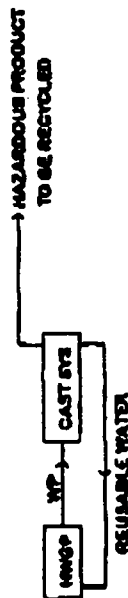
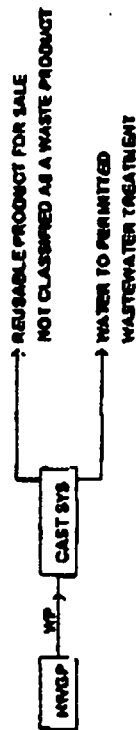
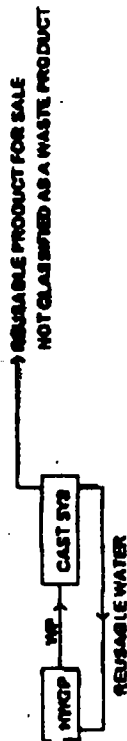
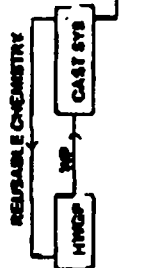
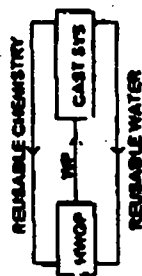
1. In this Memorandum, I am simply determining that the CAST System appears capable of meeting the tests for the totally enclosed treatment system exemption. Obviously, the manner in which this system is installed will determine whether or not the system qualifies as a totally enclosed treatment system in any particular case. For example, if the system was installed without being directly connected to an initial generator's manufacturing process, or was installed without being completely contained, the exemption would not apply. Whether the exemption will apply in any particular case also will depend on the how the system is operated. For example, the exemption could be lost if at a particular manufacturing plant, the system was not properly maintained or there were not effective protections against spills.

2. In this Memorandum, I am not addressing the State DEP's proposal to consider as totally enclosed, systems which have some air emissions but which meet a three part test of (i) having emission control devices which effectively prevent emissions, (ii) having in place a properly implemented leak detection program, and (iii) being in facility-wide compliance with all air requirements, including fugitive emission requirements. I also am not addressing the State's Environmental Results Program ("ERP") proposal to exempt from RCRA permitting certain facilities with up to 5 tons per year of air emissions. I need not reach these issues in this Memorandum, since the CAST System appears capable of meeting the tests for the totally enclosed treatment exemption as traditionally defined. The Region intends to work with the State on an ongoing basis on these other issues.

3. It should be emphasized that the totally enclosed treatment exemption is an exemption only from RCRA permitting for the treatment system. Other RCRA requirements will continue to apply. For example, if the CAST System generates a hazardous waste, RCRA generator requirements will apply, including manifesting if the waste is shipped off-site.

# POSSIBLE CAST SYSTEM INSTALLATIONS

CAST SYS = CONTROLLED ATMOSPHERE SEPARATION TECHNOLOGY SYSTEM  
WP = WASTE PRODUCT  
HWOP = HAZARDOUS WASTE GENERATING PROCESS



NOTES: 1. CAST SYSTEMS UTILIZE VACUUM ASSISTED FLASH DISTILLATION

2. CAST SYSTEMS DO NOT DISCHARGE ANY PRODUCT TO THE AIR

3. CAST SYSTEMS DO NOT EVAPORATE WATER INTO THE ATMOSPHERE

4. CAST SYSTEMS CAN BE USED WITH OTHER TYPES OF TREATMENTS TO RECOVER PRODUCTS FOR REUSE OR RECYCLING

5. CAST SYSTEMS CAN BE USED WITH OTHER TYPES OF TREATMENT TO RECOVER PRODUCTS NON-HAZARDOUS

6. IN MOST CASES, CLIENTS HAVE PERMITTED WASTE TREATMENT IN ADDITION TO CAST SYSTEMS; other waste treated or other hazardous waste generated.

All have permits.

no installations / fear of reopening permit

## **FAX TRANSMISSION SHEET**

**CELLINI PURIFICATION SYSTEMS INC.  
290 MOODY STREET  
LUDLOW, MA. 01056-1244  
(413) 589-1601  
FAX (413) 589-7301  
E-mail: cellini@worldnet.att.net**

**To: Ms. Sharon Leitch, US EPA**  
**Date: December 18, 1996**  
**From: Mr. Stephen Brown, CPS**  
**Re: Follow up on your FAX .**  
**Page: 1 of 3**

**Dear Sharon,**

**I hope that the following explanation is sufficient to answer the questions raised by the FAX you sent and our phone conversation.**

**CAST™ systems are completely hard piped. All piping is welded, solvent bonded or fusion bonded to prevent leakage. All connections are flanged or fitted with unions. All flange gaskets and union o-rings are constructed from TFE, Viton, Kel-Rez or similar corrosion resistant elastomers. All pipe, fittings, vessels, etc. are constructed of CPVC, FRP, 316 SS or similar corrosion resistant materials. All pumps, heat exchangers and instruments are constructed of 316 SS, titanium, Hastelloy or similar corrosion resistant materials. The actual materials utilized are a function of the specific process chemistry and are very carefully selected to provide years of safe, corrosion/erosion resistant service.**

**x**

- Piping connecting a CAST™ system to a manufacturing process is always hard piped in an appropriate material. The pipe runs are always maintained within secondary containment. In most cases, this type of containment consists of a walled in sealed floor area. Double containment piping may be used if warranted.
- X
- CAST™ systems have no vents.
- X
- CAST™ systems can be connected directly to the existing manufacturing process tanks. In some instances, flow equalization tanks may be used. These tanks are always covered and constructed from an appropriate material. The solutions contained in these tanks are existing process solutions or water which will be reused in the manufacturing process.
- X
- CAST™ systems are primarily marketed as closed loop resource recovery systems which do not produce waste products. However, CAST™ systems are also used to recover water for reuse while reducing the overall volume of waste product generated by a manufacturing process. In this instance, the reduced quantity of waste is pumped through hard pipe to an approved container. The waste is taken off site by a licensed waste treatment/management source for recycle or approved disposal.
- X
- All tanks and vessels contained within a CAST™ system or connected to a CAST™ system are fitted with over flow piping, process level monitoring and HI/LOW shut down floats. Tank over flow piping is connected to appropriate storage tanks or licensed/approved waste treatment systems. All tanks and vessels contained within a CAST™ system or connected to a CAST™ system are fitted with appropriate isolation valves, drain valves, access ports and sight glasses.
- X
- CAST™ systems are fitted with redundant temperature, pressure, liquid level and power controls. These controls interface with the CAST™ system's electronic package. The operation of the system is fully automatic and completely fail-safe in nature. CAST™ systems are fitted with automatic isolation valves which isolate the individual sub-systems contained within the CAST™ system. Additionally, these valves are designed to prevent the accidental discharge of process solution in the event of a mechanical failure. CAST™ systems are also fitted with manually operated service valves which allow an operator to selectively isolate components for cleaning or maintenance without exposing the remaining system to atmosphere. All CAST™ system operations can be manually overridden in the event of a control system problem.
- CAST™ systems operate under nearly a full vacuum and hence do not produce any fugitive emissions.

CPS would be very pleased to have you and any of your colleagues visit our plant. We currently have a small system on the shop floor which can be made available for inspection. Please feel free to call me to arrange a visit or if you have any other questions or comments. We at CPS look forward to developing a close working relationship with both the US EPA and MA DEP, and would gladly cooperate with you in any way possible. I look forward to hearing from you. Thank you.

Sincerely,

*Stephen H Brown*

PS Visit our Web Site at <http://www.cellinicps.com>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

*Policy Compensated*

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

August 11, 1997

Mr. J. R. Hebert  
Manager, Regulatory Affairs  
Maine Yankee  
320 Bath Road  
Brunswick, Maine 04011

*Mixed Waste*

Dear Mr. Hebert:

Thank you for your letter of July 21, 1997 in which you requested that Maine should adopt the reduced civil enforcement policy promulgated in 61 FR 18588, April 26, 1996. Your letter did not request EPA to hold up or deny authorization, or to take further comment. Below we address the three issues you listed in your letter; however, we would point out that the concerns you expressed should be resolved between Maine Yankee and the State.

1. The reduced enforcement policy of 61 FR 18588: The Hazardous and Solid Waste Amendment (HSWA) Section 3004(j) prohibits storage of land disposal prohibited wastes (including mixed waste) except "for the purpose of accumulation of such quantities of hazardous wastes as are necessary to facilitate proper recovery, treatment, or disposal." Recognizing that treatment and disposal options were not available for certain mixed waste prohibited from land disposal under the Land Disposal Restrictions, the EPA initiated a policy on the civil enforcement of the storage prohibition in Section 3004(j). (56 FR 42730, August 29, 1991) This policy treated violations of section 3004(j) as reduced priorities among the EPA's potential civil enforcement actions. The policy stated that generators may be capable of storing their mixed waste for the limited duration of the policy, if they pursued prudent waste management practices. On April 26, 1996, the EPA extended the policy until April 20, 1998. (61 FR 18588) This Federal Register is very explicit in stating that the policy extension applies only to those waste streams for which no treatment technology or disposal capacity is available. The policy also states that when, during the limited term of this policy, treatment and disposal options become available, facilities must use them to be in compliance with Section 3004(j). The Maine Department of Environmental Protection (ME DEP) advised us that in the past Maine Yankee routinely sent its waste for treatment or disposal within 90 days.

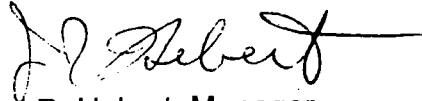
The Federal Register notice also states that this policy is not binding on states with authorization for the LDR since they have independent authority to enforce LDRs and section 3004(j). Therefore, Maine, knowing the universe of its regulated community, can determine its own approach to this policy in its goal of protecting human health and the environment.



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Maine Yankee appreciates the opportunity to comment on this final rule. We trust that you and MDEP will consider these comments in connection with your authorization of MDEP to regulate mixed waste handling. Please contact John Arnold, telephone (voice mail): 207-798-4213, fax: 207-798-4230, Internet (e-mail) [arnold@myapc.com](mailto:arnold@myapc.com), if you have questions or comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "J.R. Hebert", with a long horizontal flourish extending to the right.

J.R. Hebert, Manager  
Regulatory Affairs

c: S. Ladner, MDEP

generated in all areas of the plant including the radiation control area.

Maine Yankee is, however, concerned that proposed application of MDEP's hazardous waste rules to hazardous components of mixed waste may have the unintended consequences of increasing MDEP regulatory effort and regulated community expense with no real environmental, public health and safety, or regulatory benefit.

The issues underlying this concern are:

- 1 Imposition of the 90 day shipment requirement on all mixed waste is unworkable
- 2 MDEP's greater hazardous waste regulation stringency makes mixed waste treatment and disposal potentially more complicated.
- 3 MDEP has not adopted EPA's policy of reduced enforcement for some mixed waste handling, Reference (b)

Each of these issues and a suggested solution are discussed below.

- 1 Mixed waste needs be stored on site at the plant for longer than 90 days for two reasons: as indicated in Reference (b) treatment or disposal for certain mixed wastes streams is unavailable and where it is available the quantity of mixed waste generated and the distance of Maine Yankee from these treatment facilities makes shipment of the wastes every 90 days prohibitively expensive.
- 2 As pointed out in Reference (a) MDEP's program is more stringent than EPA's in several areas. These areas of greater stringency could increase the volume of material which is classified as mixed waste. This increased volume could further overtax existing limited mixed waste treatment facilities where they are available and increase the amount of mixed waste held in storage where they are not. Specifically MDEP lists about 65 additional chemical products as hazardous wastes including PCBs that EPA does not list as hazardous waste. Maine Yankee knows of no licensed mixed waste treatment facilities for these additionally listed wastes.
- 3 In Reference (b) EPA acknowledged the unavailability of mixed waste treatment and disposal facilities for certain low volume mixed wastes generated at commercial nuclear power plants and extended a reduced enforcement policy for these wastes streams provided that certain conditions are met. MDEP has neither adopted this policy nor promulgated a similar policy.

Maine Yankee anticipates that its environmental staff can work with the MDEP staff on a case by case method to address these issues. MDEP should, however, adopt a policy similar to EPA's in Reference (b). This adoption would ensure that a statutory framework exists to permit both the regulator and regulated community the flexibility needed to utilize the most environmentally advantageous solution to each mixed waste stream.

# Maine Yankee

RELIABLE ELECTRICITY SINCE 1972

329 BATH ROAD • BRUNSWICK, MAINE 04011 • (207) 798-4100

July 21, 1997  
JRH-97-177

Ms Geri Mannion  
U.S. EPA Region 1, (CHW)  
J.F.K. Federal Building  
Boston, MA 02203-2211

Subject: Comments on Maine's Program Revision Application: Mixed Waste Authorization

- References:
- (a) 62 FR 34007, June 24, 1997, Maine; Final Authorization of State Hazardous Waste Management Program
  - (b) 61 FR 18588, April 26, 1996, Extension of the Policy on Enforcement of RCRA Sec. 3004(j) Storage Prohibition at Facilities Generating Mixed Radioactive/Hazardous Waste
  - (c) Maine Yankee Atomic Power Company, Wiscasset, Lincoln County, Maine, Hazardous Waste Treatment Facility Under Abbreviated License Provisions, License #O-000159-HL-A-N

Dear Ms. Mannion:

Maine Yankee is pleased to offer the following comments on EPA's authorization of the Maine Department of Environmental Protection's regulation of mixed waste.

Reference (a) authorizes the State of Maine's Department of Environmental Protection (MDEP) to regulate several clusters of hazardous waste regulations. One included cluster, Non-HSWA Cluster III, includes regulation of Radioactive Mixed Waste. Maine Yankee Atomic Power Company (Maine Yankee) is a commercial nuclear fueled electricity generating facility (the plant) located in Wiscasset, Maine. Maine Yankee is a Large Quantity Generator of hazardous waste which also generates low volumes of mixed wastes. Maine Yankee has handled and disposed of these wastes in accordance with EPA and MDEP regulations. Based on this experience, Maine Yankee offers these comments on the authorization of MDEP to regulate mixed waste.

Maine Yankee has established an effective working relationship with the MDEP staff responsible for mixed waste regulation. Maine Yankee has kept these specialists informed through dialog and periodic reports of mixed waste handling activities and obtained an Abbreviated License, Reference (c) for depressurization of aerosol cans

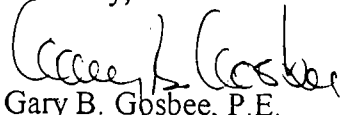
2. Imposition of the 90-day shipment requirement on all mixed waste is unworkable: The 40 CFR 262 generator requirements limit accumulation of hazardous waste on-site to 90 days without a storage permit and the need to follow the treatment, storage, and disposal regulations of 40 CFR 264 and 265. Maine's generator regulations, like the EPA's, also grants an extension (via a temporary license) of 30 days for unforeseen, temporary circumstances. In your reference to 61 FR 18588, April 26, 1996, you noted that storing mixed waste for more than 90 days is necessary because treatment technologies or disposal facilities are unavailable. Please note that 61 FR 18588 is a policy for reduced enforcement for violations of 3004(j) that would occur when facilities stored their mixed waste beyond 90 days for reasons other than proper recovery, treatment or disposal. You also noted that storing mixed waste for more than 90 days is necessary because, when treatment or disposal facilities are available, the cost of shipping off-site every 90 days is expensive. Section 3004(j) does not address the expense of disposal as a reason for storing wastes beyond 90 days. Therefore the reduced enforcement policy for civil enforcement of violations of 3004(j) as promulgated should not be read as a policy to extend the 90-day shipment requirement on the basis of expense.

3. Regulatory Stringency: The Resource Conservation and Recovery Act (RCRA) Section 3009 and 40 CFR 271.1(i) address a State's ability to promulgate rules that are more stringent and broader in scope than the Federal regulations. The EPA authorized Maine to implement specific provisions of its hazardous waste program in lieu of the EPA in 1988. At that time, Maine included PCB's and the other Maine-listed wastes in its regulations. Based on our conversations with ME DEP, we understand that Maine Yankee has not experienced difficulties in seeking treatment technologies or disposal availability for the mixed waste that it generates. If situations arise, in which a facility could not secure treatment or disposal availability for its mixed waste, the facility should work with ME DEP on a case-by-case basis.

We examined your comments in light of the basic standards that a State hazardous waste program must meet in order to qualify for final authorization and for authorization of program revisions. As Maine meets the standards for equivalency and because the reduced civil enforcement policy is not binding on states authorized for LDR, we intend to go forward with our determination to approve Maine's application.

We hope our comments on the above prove a satisfactory response to the questions you raise. If you have any additional questions, please feel free to contact Geri Mannion of my staff at (617) 565-3607.

Sincerely,



Gary B. Gosbee, P.E.

Manager, Hazardous Waste Program Unit

cc: Geri Mannion, EPA  
Jeffrey Fowley, EPA  
Steve Silva, EPA  
Stacy Ladner, ME DEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

file copy

December 9, 1998

Ms. Linda A. Swift, Senior Environmental Scientist  
Capaccio Environmental Engineering, Inc.  
75 Union Avenue  
Sudbury, MA 01776-2255

Subj: Classification of Unused Integrated Circuits

Dear Ms. Swift:

This letter is in response to your November 4, 1998 request for a RCRA regulatory interpretation on unused "scrap" integrated circuits.

40 CFR 261.1(c)(4) states: "A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated." In your letter, you indicate that the unused integrated circuits are sent off-site for reclamation of precious metals and lead.

A solid waste is defined at 40 CFR 261.2(a)(1) as "...any discarded material that is not excluded by 261.4(a) or that is not excluded by variance granted under 260.30 and 260.31." 40 CFR 261.2(a)(2)(ii) goes on to state: "A discarded material is any material which is recycled, as explained in paragraph (c) of this section." Paragraph (c)(3) of 40 CFR 261.2 then states: "Materials noted with a "\*" in column 3 of Table 1 are solid wastes when reclaimed."

In Table 1, the unused scrap integrated circuit would be included in the category of "commercial chemical products listed in 40 CFR 261.33", even though it is not a listed waste in 40 CFR 261.33. This is because EPA considers listed and non-listed commercial chemical products to be of the same regulatory status (see Federal Register Vol. 50, No. 70, Page 14219, April 11, 1985). According to Table 1 of 40 CFR 261.2, commercial chemical products are not a solid waste when reclaimed. Therefore, since unused scrap integrated circuits are non-listed commercial chemical products, from the federal standpoint they are not solid wastes under RCRA when they are processed to reclaim precious metals and lead. However, the Massachusetts Department of Environmental Protection (MA DEP) regulations may contain more stringent requirements. You should contact James Patterson of the MA DEP at 617/556-1096 to determine what state requirements are imposed on unused scrap integrated circuits.

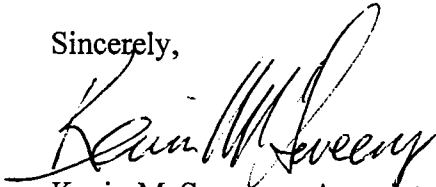
The May 12, 1997 Federal Register (Vol. 62, No. 91, Pages 25998-26040) contains the final rule for Phase IV of the Land Disposal Restrictions (LDR) including exemptions from RCRA for certain processed materials (i.e., processed circuit boards). Although the rule applies to used printed circuit boards and your request pertains to unused integrated circuits, the rule should serve as guidance in the handling of unused integrated circuits. The rule states in paragraph VIII.B.1 on Pages 26011-26012:

**"The proposed exclusion was conditioned on the storage of the shredded circuit boards in containers prior to recovery that would be adequate to prevent a release of the boards to the environment. .... EPA is finalizing this exclusion as proposed with an additional limitation that shredded circuit boards excluded from RCRA jurisdiction be free of mercury switches, mercury relays, nickel-cadmium batteries, and lithium batteries (emphasis added)."**

One final point: the residual materials which are generated during reclamation would be subject to solid and hazardous waste determinations at the point of generation.

If you have any questions about this regulatory interpretation letter, please contact Marina Cronin of my staff at (617) 918-1575.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin McSweeney", is written over a horizontal line.

Kevin McSweeney, Associate Director for Waste Policy  
Office of Ecosystem Protection

cc: Jim Miller, MA DEP  
Leo Hellested, RI DEM  
Stacy Ladner, ME DEP  
John Duclos, NH DES  
Dave Sattler, CT DEP  
Peter Marshall, VT DEC  
Ken Rota, EPA, OES-SER  
Jeff Fowley, EPA, OEP-RCA



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 1**

**JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001**

October 8, 1998

Mr. J. Hyte Johnson  
Environmental Health and Safety Coordinator  
Walbar Metals, Inc.  
Metals Peabody Operation  
Peabody Industrial Center  
P.O. Box 3369  
Peabody, MA 01961-3369

Subj: Petition to classify a solid waste as a non-hazardous waste under 40 CFR 261.4(b)(6) and 310 CMR 30.125B

Dear Mr. Johnson:

We have received your letter to John DeVillars, Regional Administrator of EPA Region I, dated September 1, 1998, in which you petition to have your aluminizing powder waste stream excluded as a hazardous waste under 40 CFR 261.4(b)(6).

Enclosed please find your original petition which was sent to our office. We are returning it to you because EPA Region I will not ultimately be responding to your petition. Your petition must be assembled in full accordance with 40 CFR 260.20. This regulation states that the petition must be sent via certified mail to the EPA Administrator, Carol Browner, at EPA Headquarters in Washington D.C. It also lists the types of information that must be included in your petition. The initial contact person who will respond to your petition is Greg Helms. He can be reached at 703/308-8845. Greg has indicated to us that he would be willing to help you revise your petition to include all of the information necessary for Headquarters expedite your request. We advise you to take the opportunity to coordinate with Greg on the kinds of information to submit with your petition.


Massachusetts has adopted the hazardous waste exclusion at 40 CFR 261.4(b)(6). 310 CMR 30.125B(3) specifies that you petition the MA Department of Environmental Protection (DEP) to have your waste stream covered by the exclusion. Therefore, MA DEP must also respond to your petition.

Marina Cronin of my staff will serve as a liaison between MA DEP and EPA Headquarters. She will be responsible for facilitating discussions and answering questions on behalf of the region as necessary. You may contact Marina if you need her to act in these capacities.

Finally, we are enclosing a copy of the preamble discussion of the final rule amending 40 CFR 261.4 (Federal Register Vol. 45, No. 212; October 30, 1980). The preamble describes the background about the hazardous waste exclusion at 40 CFR 261.4(b)(6), as well as the procedures to obtain an exclusion. The discussions in the preamble are relevant even though there are references to the EP toxicity test (which has been replaced with the Toxicity Characteristic Leaching Procedure, or TCLP).

If you have any questions about the information contained in this letter, please call Marina Cronin at 617/565-3544.

Sincerely,

  
Gary B. Gosbee, P.E., Chief  
Hazardous Waste Program Unit

enclosures

cc: Kevin McSweeney, EPA (without enclosures)  
Ken Rota, EPA-SER (without enclosures)  
Jeff Fowley, EPA-RCA (without enclosures)  
Greg Helms, EPA Headquarters, OSW (without enclosures)  
Jim Miller, MA DEP (without enclosures)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

October 2, 1998

Mr. Michael B. Smith,  
Sites Management Section  
Waste Management Division  
Vermont Department of Environmental Conservation  
103 South Main Street/West Building  
Waterbury, VT 05671-0404

Re: Contained-In Waste Determination for Additional F032 Media, Windsor School Site,  
Windsor, Vermont

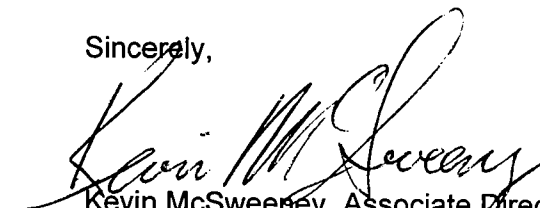
Dear Mr. Smith:

This letter is in response to your letter of September 3, 1998 in which you requested EPA's clarification on the applicability of EPA's July 25, 1997, "contained-in" determination for media contaminated with an F032 waste for additional F032 media that may be discovered at the same (Windsor) site as the result of a more comprehensive site investigation. As you explained in the June 25, 1998 letter and in previous correspondences between Vermont and the Environmental Protection Agency (EPA), Vermont has not yet adopted the F032 waste listing in its Hazardous Waste Management Regulations and cannot make a "contained-in" determination for this particular waste as outlined in an EPA OSWER policy letter dated September 15, 1995.

EPA believes that the conditions outlined in the July 25, 1997 "Contained-In Policy Determination" would apply to any newly discovered locations at the Windsor site. A separate contained-in policy determination will not be necessary for any newly discovered dioxin-contaminated site that was associated with the former State Prison wood treatment operation.

If you should have any questions concerning the contents of this letter, please do not hesitate to contact Stephen Yee of the Hazardous Waste Program Unit at (617) 565-3550 or me at (617) 565-3559.

Sincerely,

  
Kevin McSweeney, Associate Director  
Waste Policy  
Office of Ecosystem Protection

cc: George Desch, VTDEC  
Peter Marshall, VTDEC  
Lynne Hamjian, EPA  
Matt Hoagland, EPA  
Gary Gosbee, EPA  
Sharon Leitch, EPA  
Ken Rota, EPA



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION I**  
**JOHN F. KENNEDY FEDERAL BUILDING**  
**BOSTON, MASSACHUSETTS 02203-0001**

August 11, 1998

Mr. George Desch,  
Sites Management Section  
Waste Management Division  
Vermont Department of Environmental Conservation  
103 South Main Street/West Building  
Waterbury, VT 05671-0404

Re: Contained-In Waste Determination for Additional F032 Media, Windsor School  
Site, Windsor, Vermont

Dear Mr. Desch:

I am pleased to respond to the letter of June 25, 1998 from Ms. Lynda Provencher of your staff in which she requested EPA's clarification on the applicability of EPA's July 25, 1997, "contained-in" determination for media contaminated with an F032 waste for additional F032 media that was found at the same (Windsor) site. As you explained in the June 25, 1998 letter and in previous correspondences between Vermont and the Environmental Protection Agency (EPA), Vermont has not yet adopted the F032 waste listing in its Hazardous Waste Management Regulations and cannot make a "contained-in" determination for this particular waste as outlined in an EPA OSWER policy letter dated September 15, 1995.

The information provided in the June 25, 1998 letter and from a July 23, 1998 telephone conversation with Mr. Michael Smith of your staff indicated that two additional areas of dioxin contamination were detected as part of a more comprehensive dioxin sampling effort to determine the degree and extent of contamination at the Windsor site. This sampling effort was done in conjunction with the remediation effort of August and September 1997 and the July 25, 1997 EPA determination.

The data indicated that the first contaminated area is located in the southeast portion of the football field. Dioxin concentrations of up to 375 ppt-TEQ (at "DS90") were found in this area. A second contaminated area was found in an area that is located to the east of the baseball field. Dioxin concentrations of up to 775 ppt-TEQ (at "DS31") were found in this second area. The letter indicated that the dioxin concentrations in these two areas were considerably less than what was detected in the remediation of the "hot spot" area in 1997. The source of the dioxin contamination is believed to be from the former State Prison wood treatment operation.

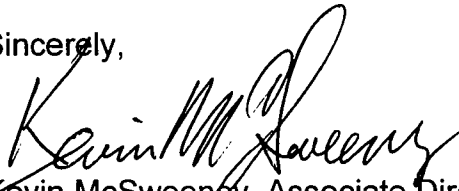


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Based on a review of the information provided, EPA believes that the conditions outlined in the July 25, 1997 "Contained-In Policy Determination" apply to the two newly discovered locations. A separate contained-in policy determination will not be necessary at this time.

If you should have any questions concerning the contents of this letter, please do not hesitate to contact Stephen Yee of the Hazardous Waste Program Unit at (617) 565-3550 or me at (617) 565-3559.

Sincerely,



Kevin McSweeney, Associate Director  
Waste Policy  
Office of Ecosystem Protection

cc: Michael Smith, VTDEC  
Peter Marshall, VTDEC  
Lynne Hamjian, EPA  
Matt Hoagland, EPA  
Gary Gosbee, EPA  
Sharon Leitch, EPA  
Ken Rota, EPA



# FILE COPY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

topic =  
satellite  
accumulation.

July 17, 1998

James D. Fitzgerald, P.E., LSP  
Environmental Resources Management  
399 Boylston Street, 6<sup>th</sup> floor  
Boston, MA 02116

Subj: Clarifications of RCRA generator storage requirements

Dear Mr. Fitzgerald:

This letter is written in response to inquiries contained in your letter to EPA dated May 28, 1998. In your letter, you ask for clarifications of how specific generator storage practices comply with generator requirements. Clarifications of these practices are provided below:

1. Hazardous waste in a five gallon container is accumulated in a 90-day accumulation area at a large quantity generator (LQG). The container is labeled and dated when the first drop of waste is put into the container. When the container is full, it is carried to a different 90-day accumulation area and poured into a 55-gallon hazardous waste drum, which may already contain compatible hazardous waste. There is a written procedure that requires that the date shown on the label of the 55-gallon drum be the earliest of either a) the date of the first entry of waste into the 5 gallon "feeder" container, or b) the date that other waste was first put into the 55-gallon container. This means that, on occasion, the date on the drum will be crossed out and an earlier date will be written.

## Clarification

Although this practice is not prohibited, crossing out and rewriting the date on a container (even if changing to an earlier date) may not always be an orderly way of updating container labels, especially if wastes are transferred among several 90-day accumulation areas at a given facility. A date on a container label which is crossed out and changed could make an inspector skeptical of the operator's ability to accurately track containers. If this is the approved or agreed-upon method of tracking hazardous waste containers which are transferred from one 90-day accumulation area to another, it is imperative that the facility keep clear and updated logs of all of its 90-day hazardous waste storage containers. The facility also should consider adopting a written standard operating procedure for this practice.



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2. A five gallon container is used for satellite accumulation. When it is filled up, it is immediately taken to a 90-day accumulation area, where it is poured into a 55-gallon drum. In this case, the procedure states that the date on the label of the 55-gallon drum must be the date that the first drop of hazardous waste went into the drum (not some prior date when the hazardous waste was accumulating in the satellite area).

#### Clarification

This practice would be acceptable *provided that* 40 CFR 262.34(c)(1) or an equivalent state regulation approved by EPA is met. The federal regulation states the following:

"A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in 261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) of this section provided he:

- (i) Complies with 265.171, 265.172, and 265.173(a) of this chapter; and
- (ii) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers."

You should consult the appropriate state's corresponding regulations on satellite accumulation to be sure that they are not more stringent. The Massachusetts Hazardous Waste Regulations at 310 CMR 30.340(4) and 30.351(4) allow both large and small quantity generators (LQGs and SQGs) to accumulate hazardous wastes in containers at or near the point of generation where wastes initially accumulate, provided that:

- a. The wastes must be generated as a result of a process occurring at the specific point of generation where the wastes are initially accumulated.
- b. Each such specific point of generation where wastes initially accumulate shall be under the control of the key staff individual directly responsible for the process resulting in the generation of such wastes.

- c. **For each specific point of generation, only one container may be used at any one time. The maximum capacity of said container shall be as follows:**
1. **55 gallons if the hazardous waste being accumulated is hazardous waste identified or otherwise described in 310 CMR 30.120 through 30.135; or**
  2. **one quart if the hazardous waste being accumulated is acutely hazardous waste listed or otherwise described in 310 CMR 30.136.**

Thus, Massachusetts allows (for non-acutely hazardous waste) only one container up to 55 gallons in capacity for a particular point of generation. An example which would be in compliance with the federal regulation but would not be in compliance with the Massachusetts regulation is a satellite accumulation area with three 10-gallon containers of the same waste stream.

To be "under the control of the operator of the process generating the waste", the satellite accumulation area should be located where the operator can easily observe the physical condition of the container (i.e., to prevent others from handling or tampering with the contents of the container). While it can be argued that inside an adjacent room is "near the point of generation", a satellite accumulation container located in a room adjacent to the point of generation might not be routinely observed (i.e., frequently walked past) and therefore not under an operator's control for a significant portion of a day. Satellite accumulation in a room adjacent to the point of generation may be acceptable if operator control is maintained (i.e., via locked access).

In short, for this practice to be acceptable, the satellite accumulation area must be **at or near the point of generation, and under the control of the operator of the process generating the waste**. If there is a question as to whether or not these criteria are met for a particular situation, you may wish to more fully detail the situation to EPA for a more complete clarification.

3. Is it permissible for a 90-day accumulation area and a satellite area to be present in the same room, or even adjacent to each other, provided that the two areas are separate, distinct areas?

In other words, the 90-day area would be defined as required with a sign and delineation, while the satellite container would be marked or sign-posted to confirm to an inspector that the satellite container is indeed satellite, and that it does not constitute a waste container that should be inside the 90-day area.

### Clarification

It is possible for a 90-day accumulation area and a satellite area to be present in the same room, *provided that* the satellite area is, again, at or near the point of generation, and under the control of the operator of the process generating the waste. The discussion in the clarification of question no. 2 above also applies to this situation.

4. When a 90-day accumulation area comprises only a part of a room which is behind a door, is the following signage practice permissible?

A hazardous waste sign is placed on the outside face of the door leading to the area as a general warning of the character of the materials inside. Inside the room, the exact portion of the room designated for 90-day accumulation is marked in accordance with the regulations. Other materials, for example, non-hazardous wastes or virgin materials, are also present within the room but not within the delineated 90-day accumulation area.

### Clarification

You indicate in this scenario that the exact portion of the room designated for 90-day accumulation is marked in accordance with regulation. You may want to actually post a sign so that upon entering through the door, it is immediately obvious which area inside the room has hazardous waste.


This practice would be permissible. However, the person responsible for maintaining the 90-day storage area should ascertain that hazardous wastes, other non-hazardous wastes, virgin materials, etc., are in the appropriate areas within this room. The responsible person should also pay special attention to spill containment and compatibility issues (i.e., if the contents of a 90-day container of hazardous waste were to spill and commingle with an incompatible substance outside of the delineated 90-day area). With respect to compatibility, the Massachusetts regulations at 310 CMR 30.340(1)(k) indicate:

"All areas where wastes are accumulated for purposes of complying with 310 CMR 30.000 [generator requirements] generally shall be clearly marked (e.g., by a clearly visible line or piece of tape on the floor, or by a gate or fence, or by a sign at the boundary of a clearly distinguishable area) so that they are clearly distinguishable at all times from all specific points of generation where wastes are initially accumulated solely for the purposes of 310 CMR 30.340(4) [satellite accumulation requirements], and from all areas at the site of generation where wastes are not accumulated."

Please note that a facility with a satellite accumulation area(s) must meet the criteria outlined in 40 CFR 262.34(c)(1). If during an inspection a satellite accumulation area is found to be out of compliance with 262.34(c)(1), it could be cited as a violation of 90-day storage requirements. You should also confer with all applicable states where there could be facilities with any of the circumstances described above. States which are authorized for the RCRA base program could have more stringent requirements than the federal.

If you have any questions about the information discussed in this letter, please call Marina Cronin at (617) 565-3544.

Sincerely,



Edward K. McSweeney  
Associate Director for Waste Policy  
Office of Ecosystem Protection

cc: Ken Rota, EPA, SER  
Gary Gosbee, EPA, CHW  
Sharon Leitch, EPA, CHW  
Al Nardone, MA DEP  
Peter Marshall, VT DEC  
John Duclos, NH DES  
Dave Sattler, CT DEP  
Leo Hellested, RI DEM  
Stacy Ladner, ME DEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

MEMORANDUM

DATE: July 10, 1998

SUBJ: EPA Region I RCRA Program's Comments on R.I. DEM's Draft  
"Guidance on the Use of Evaporators in Electroplating and Metal  
Finishing Operations."

FROM: *Edward K. McSweeney*  
Edward K. McSweeney, Associate Director of Waste Policy

TO: Robert Mendoza, Director, Rhode Island State Unit

Below are the EPA Region I RCRA Program's comments on the R.I. DEM's Draft "Guidance on the Use of Evaporators in Electroplating and Metal Finishing Operations." These comments have been coordinated between the Office of Ecosystem Protection, the Office of Environmental Stewardship and the Office of Regional Counsel.

We appreciate the extensive effort made by the State in developing this policy, and support the development of appropriate mechanisms for avoiding full RCRA permitting in appropriate cases. At the same time, we believe that any regulatory interpretations must be done carefully to ensure that important public health protection requirements remain in place. With these principles in mind, we have the following comments.

1. Paragraph 6 of the State's Draft Policy provides that evaporator units, which are part of tanks, and which are permitted under the Clean Water Act, do not need to obtain RCRA permits. Based on discussions between our staffs, we understand that the State contemplates that NPDES or pretreatment permits will be issued to sources which will eliminate or limit their water discharges and will be using evaporators in lieu of having water discharges. The evaporators will of course have air emissions. The Draft Policy further provides in Note 3, however, that evaporator units approved as part of a wastewater discharge permit will be exempt from the RCRA air regulations for generator tanks (and containers) set out in 40 CFR part 265, subpart CC.

The Region opposes the use of the wastewater treatment exclusion to totally exempt evaporators from RCRA generator requirements such as the CC rule. Exempting evaporators with air emissions from the RCRA air rules, because the evaporators have water permits, does not make environmental sense. It is true that the EPA has exempted certain sources which discharge to the water pursuant to Clean Water Act requirements, from RCRA generator requirements including the CC rule. See 40 CFR § 261.5(c)(2). The NRDC and EDF have petitioned the EPA to close this "loophole," however, even as to sources which actually discharge

to the water. Totally exempting evaporators, which do not even discharge to the water, from RCRA requirements, would move the Rhode Island program in the opposite direction from what the EPA is now considering in response to the petition from these national environmental groups.

It is also true that under the federal RCRA regulations, the wastewater treatment exclusion has been applied not only to sources actually discharging to the water but also to sources which have ceased water discharges as a "direct result" of Clean Water Act requirements. See 53 Fed. Reg. 34080 - 34081 (Sept. 2, 1988). What Rhode Island is contemplating, however, is issuing water permits to evaporators as a more cost effective control mechanism in lieu of RCRA permitting. While we do not question the legitimacy of the effort, we don't think it can be fairly said that the water permits for evaporators will be issued as a "direct result" of Clean Water Act requirements. Thus the current Draft Policy is less stringent than federally required insofar as it creates a total exemption from RCRA requirements for evaporators with water permits.

The federal exemption from RCRA permitting which could be applied to evaporators, which are part of tanks, is the generator treatment in accumulation tanks and containers exemption set out at 51 Fed. Reg. 10168 (March 24, 1986). This is a partial exemption which would exempt the evaporators from the RCRA permitting requirement (during the period of allowed generator storage) while keeping in place the RCRA generator requirements including the "CC" rule.

As an authorized State, Rhode Island may issue interpretations of its hazardous waste regulations, provided that its program remains "equivalent" and no less stringent than the federal RCRA program. Rhode Island needs to revise paragraph 6 of its Draft Policy to make it equivalent and no less stringent, in one of two ways.

First, the State could drop its plan to utilize water permits in place of RCRA permits for evaporators, and instead adopt the federal treatment in accumulation tanks and containers partial exemption. This would involve deleting paragraph 6 and revising paragraph 7. We understand, however, that the State may not want to go this route, in part because it wants to maintain permits controls and oversight on evaporators, through the water program.

Thus, as a second alternative, we agree that the State may interpret its regulations to exempt evaporators from RCRA permits, if they are covered by water permits, as set out in paragraph 6. However, the State must then make clear that it is creating only a partial exemption, from RCRA permitting requirements, and that sources using evaporators remain subject to RCRA generator requirements. By doing this, the State will

impose requirements "equivalent" to those in the federal RCRA program, although in a different manner.

To make this change, the State needs to add language such as the following at the end of paragraph 6, following the statements that the evaporators will be exempt from RCRA permitting:

"However, the influent wastewater must be handled as a hazardous waste and the source must be operated in compliance with RCRA generator requirements including Rule 5.00 of the Rhode Island Rules and Regulations for Hazardous Waste Management and the regulations regarding air emissions from tanks in 40 CFR part 265, subpart CC." Footnote 3 of the Draft Policy also needs to be deleted or changed.

In addition, it is critical that any water permits issued for evaporators make clear that they are not exempting the evaporators from RCRA generator requirements, but rather that these hazardous waste requirements must be complied with (as part of the federally enforceable RCRA program) in addition to complying with the terms of the permits. For water pretreatment permits to be issued by POTWs, the State should ensure that this occurs by issuing guidance and through oversight.

Finally, footnote 3 of the Draft Guidance states that the "CC" rules do not apply to small quantity generators. This is true with respect to the minimum federal requirements. However, in its regulations, Rhode Island has chosen to be more stringent in not making any distinction between large and small quantity generators. Thus, currently the "CC" rules do apply to small quantity generators in Rhode Island, and the statement in footnote 3 is inaccurate.

The State may of course change its regulations to provide that certain requirements (e.g., the "CC" rule and/or the requirement for secondary containment around tanks) only apply to large quantity generators. But unless and until such a regulation change is made, we think the Draft Guidance should be revised to be accurate. If the State proposes to make such a regulation change, we would not object to the State exercising enforcement discretion while the change was being adopted.

2. Paragraph 1 of the State's Draft Policy provides that some evaporation systems such as "vacuum evaporators" can meet the definition of a "totally enclosed treatment facility" and are thus exempt from RCRA permitting. While we agree that any system which meets the definition of a "totally enclosed treatment facility" may be exempted from RCRA permitting on that basis, we think that as currently written paragraph 1 is potentially confusing. We think it should be revised to make clear that evaporators will generally not fall within this exemption. Also, "vacuum evaporators" is not a widely used or understood term.

after accounting for all costs, to not be within the precious metal recovery exemption. For example, while plating baths often qualify for this exemption, rinse waters rarely do."

4. Paragraph 7 of the State's Draft Policy provides that RCRA permits will be required for evaporators when the various exemptions (as discussed above) do not apply and when the evaporators are used "to concentrate hazardous waste for the sole purpose of volume reduction for off site treatment or disposal." The words "for the sole purpose of volume reduction for off site treatment or disposal" should be deleted. The RCRA treatment permit requirement is not limited in that way. Deleting the "sole purpose" language in paragraph 7 will make it clear that evaporators being used even in part to concentrate hazardous waste are covered by RCRA requirements. Similarly, the word "solely" should be deleted from the last paragraph of the Draft Policy's introductory paragraphs (at the top of page 2).

As paragraph 4 of the Draft Policy points out, for an evaporator to be considered part of a manufacturing process, as opposed to a RCRA regulated process, its "sole purpose" must be to concentrate an in-process material for direct return to a plating tank. The use of the term "sole purpose" in both paragraphs 4 and 7 seems contradictory; rather the Draft Policy should make it clear that RCRA applies unless the sole purpose of an evaporator is other than waste handling.

5. In the Draft Policy, footnote one, we suggest that the State refer to its definition of hazardous waste in Rule 3.25, to clarify what it means when it says that residues from evaporators must be managed as hazardous wastes when they meet the "criteria" of a hazardous waste.



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-831-5508

May 29, 1998

Robert Mendoza  
U.S. Environmental Protection Agency  
JFK Federal Building, CRI  
Boston, MA 02203

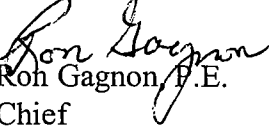
Dear Mr. Mendoza:

Please find enclosed RIDEM's DRAFT "Guidance for the Use of Evaporators in Electroplating and Metal Finishing Operations." This policy represents a consensus position among RIDEM program supervisors and division chiefs in the Offices of Air, Waste Management, Water Resources, Compliance and Inspection, Technical and Customer Assistance and the Narragansett Bay Commission's Industrial Pretreatment Program. The leadership of the Rhode Island Contract Electroplaters (RICE) Association has also reviewed and commented on an earlier version of the guidance, and fully supports this final draft. RICE has played an active role in serving on the Evaporator Project Steering Committee and in surveying their membership concerning potential applications of evaporator technology. In addition, the University of Rhode Island's Center for Pollution Prevention is undertaking chemical engineering mass balance studies in support of said guidance.

I am hereby requesting that the USEPA review this final draft for conformance with federal policy, rules and regulations. Relative to EPA's new RCRA Subpart CC requirements, we would welcome any thoughts regarding footnote (3) on page 4.

As this policy has been a top priority for our office, we would appreciate receiving your comments at your earliest convenience. Please feel free to call me at 401/222-4700 ext. 7500 should you have any questions.

Sincerely,

  
Ron Gagnon, P.E.  
Chief

Enclosure

cc:	A. McLeod	F. Vincent
	J. Fester	M. Mahoney
	E. Syzmanski	R. Enander

DRAFT May 26, 1998

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
GUIDANCE FOR THE USE OF EVAPORATORS IN ELECTROPLATING  
AND METAL FINISHING OPERATIONS

INTENT

This guidance is intended to help ~~clarify permit issues~~ for members of the electroplating and metal finishing industry sector who seek to ~~install and use evaporator technology~~ in their facility operations. For the purposes of this policy, an ~~evaporator~~ is defined as an engineered process unit that is designed to change a substance from its liquid state to a vapor or gas.

The Rhode Island Department of Environmental Management (RIDEM) does not feel that it is environmentally or economically practical to configure manufacturing processes in a manner that ~~requires RCRA~~ (and/or other) ~~permits for evaporator systems~~. We encourage potential users of evaporators ~~to first~~ pursue pollution prevention opportunities related to their manufacturing processes and ~~second~~, to seek technical assistance from RIDEM, the Narragansett Bay Commission or other parties to design the evaporator unit into the process to minimize environmental impacts and avoid pursuing costly and complex environmental permits.

ENVIRONMENTAL HEALTH AND POLLUTION PREVENTION

As evaporators may result in the cross-media transfer of chemical pollutants, there is concern over the potential adverse environmental and/or human health impacts of this technology. Further, evaporators are used to reduce the volume of a waste (physical treatment) after it has been generated. *Pollution prevention*, by contrast, seeks to reduce or eliminate the generation of pollutants at their source. It includes any practice (such as substitution of raw materials, process or procedure modifications, and improvements in housekeeping, training, or inventory control) which 1) reduces the amount of any hazardous substance, pollutant or contaminant entering any waste stream prior to treatment, recycling or disposal, and 2) reduces the hazards to public health and the environment (U.S. EPA Facility Pollution Prevention Guide, EPA/600/R-92/088, 1992).

The RIDEM strongly encourages all facilities that seek to install evaporator units, to ~~first reduce the amount of material to be treated~~ by adopting appropriate pollution prevention methods. This approach will not only lead to a reduction in waste material generation, but may also result in significant economic savings from decreased raw material purchases, energy consumption in evaporator operation, and capital outlays for evaporator equipment purchases.

POINT OF APPLICATION AND MATERIALS PROCESSED

Evaporation technology can be used at various points in a process or waste treatment operation. Additionally, evaporators differ in their basic design (e.g., atmospheric, vacuum) as well as the

forth, in regulation or policy, a specific economic value threshold, the material must be valuable enough that the Department would be confident that any release of the material would be recovered for the sake of its precious metal content alone. This operation is subject to the requirements for "recyclable materials utilized for precious metal recovery" specified in 40CFR266.70.

6 An evaporator unit, which is part of a wastewater pretreatment system that is operated and maintained in accordance with plans approved in a wastewater discharge permit issued pursuant to section 402 or 307(b) of the Federal Clean Water Act, as amended, and Section 46-12-5 of the General Laws of Rhode Island, as amended, and which receives and treats an influent aqueous wastewater which is a hazardous waste and meets the definition of a tank as defined in 40CFR260.10, ~~does not require~~ a hazardous waste treatment permit as authorized in Rule 7.01 (A) 3 of the Rhode Island Rules and Regulations for Hazardous Waste Management (see "Wastewater Discharge Permit" section below).

#### *TSDF Permit Requirements*

(1) An evaporator unit that is used to concentrate hazardous waste for the sole purpose of volume reduction for off site treatment or disposal, and does not meet the definition of a "totally enclosed treatment unit" (1 above) or is not part of a wastewater discharge permit issued pursuant to section 402 or 307(b) of the Federal Clean Water Act, as amended, and Section 46-12-5 of the General Laws of Rhode Island, as amended, ~~will be required~~ to obtain a TSDF Permit pursuant to Rule 7.00 of the Rhode Island Rules and Regulations for Hazardous Waste Management.

#### **WASTEWATER DISCHARGE PERMITS**

(1) Facilities proposing to use or install an evaporator unit within a process or as part of an industrial wastewater pretreatment system must first obtain approval in the form of a valid wastewater discharge permit or a revised permit (which incorporates evaporator unit design and operational criteria, and any additional documentation and/or detail of plans that may be required to properly evaluate the process operation) from the local Publicly Owned Treatment Works (POTW) or the RIDEM. In addition:

- a. The evaporator system must be referenced in the facility's wastewater discharge permit issued by the local POTW, and
- b. Wastes that are intended to be commingled must be chemically compatible as approved by the local POTW, and
- c. The sewer authority must have an approved pretreatment program that includes procedures to periodically inspect evaporator units as necessary for compliance with relevant permit conditions, considering multi-media impacts, and
- d. Only waste authorized to be treated by the POTW may be treated in the on site unit.

#### **AIR POLLUTION CONTROL**

(1) Evaporator systems that treat hazardous waste and meet the definition of a "totally enclosed treatment facility" ~~are not required~~ to obtain an air pollution control permit from RIDEM.

(2) Evaporators that are not "totally enclosed" and that emit less than the pollutant thresholds specified in RIDEM's Air Pollution Control Regulation 9, ~~are not required~~ to be permitted by the Division of Air Resources.

(3) Evaporators that are not "totally enclosed" and that emit more than the pollutant thresholds specified in RIDEM's Air Pollution Control Regulation 9, ~~are required~~ to obtain an air pollution control permit



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

February 27, 1998

Mary Williams, Project Director  
NH/VT Solid Waste Project  
24 Tremont Square, Room 218  
Claremont, NH 03734

Re: Regulatory Status of Newport, NH Ash Landfill Leachate

Dear Ms. Williams:

This letter is written to address the regulatory status of leachate collected from the Newport Ash Landfill operated by the NH/VT Solid Waste District and to provide fair notice of the applicable requirements. The major issue in this matter is whether the leachate collected from the operation of the ash landfill is regulated as a hazardous waste under the Resource Conservation and Recovery Act (RCRA) or whether the leachate is somehow excluded from RCRA by either (1) the domestic sewage exclusion, (2) as an industrial wastewater since it is ultimately discharged to a Publicly Owned Treatment Works (POTW) subject to a National Pollution Discharge Elimination System (NPDES) permit or (3) by the household hazardous waste exemption. For the reasons explained below, these exclusions do not apply to the leachate under the EPA regulations. The regulations promulgated under the New Hampshire state RCRA program must also be and are as stringent as these EPA regulations.

First, in order to be regulated under RCRA, the leachate generated by the operation of your ash landfill must meet the definition of a solid waste. A solid waste is any material that is discarded by being abandoned, recycled or inherently waste-like. A material is considered to be abandoned if it is disposed of, burned or incinerated, or accumulated, stored or treated before disposal. A solid waste may qualify for an exemption from this definition if it is found to be excluded under 40 C.F.R. § 261.4(a) or (b) of the RCRA regulations.

The leachate collected from your ash landfill is accumulated and stored prior to treatment and disposal into a waterway of the United States. Both the generation of the leachate and the manner in which this material is managed meets the definition of a solid waste. With respect to a possible exclusion as a "domestic sewage," the leachate collected is the result of an industrial process (e.g., the operation of the landfill) and is not a domestic sewage which is excluded under 40 C.F.R. § 261.4(a)(1)(i). Also, the leachate is not excluded under 40 C.F.R. § 261.4(a)(1)(ii) as it is not discharged to the sewer together with domestic sewage at the landfill but rather is accumulated on-site in a tank and is physically trucked off-site to a POTW.



Second, industrial wastewaters may be excluded from the definition of a solid waste. However, the exclusion language contained at 40 C.F.R. § 261.4(a)(2) only applies to the actual point source discharge which is located at the POTW, as explained in the "comment" under that regulation. This exclusion does not apply to the leachate or the leachate collection system located at your facility. EPA has applied the industrial wastewater treatment exemption in cases where landfill leachate from a leachate collection system was collected, treated and discharged directly into a nearby waterway under a clean water act permit. The industrial wastewater exemption under 40 C.F.R. § 261.4(a)(2) does not apply to the leachate (or sludges) generated at your facility since no clean water permit is applicable while the leachate is being collected, stored or treated prior to off-site transport and discharge to the POTW. The preamble language contained in the General Pretreatment and National Pollutant Discharge Elimination System Final Rule (FR, Vol. 55, No. 142) clarifies the regulatory status of both the domestic sewage and industrial wastewater exemptions as I have explained them to you. One of the intents of this rule was to regulate the discharge of liquid wastes that are trucked or hauled off-site to a POTW under RCRA which is the case with your ash landfill leachate

Last, under the EPA regulations, household hazardous waste need not be managed as a hazardous waste, including "household waste that has been collected, transported, stored, treated, disposed, recovered...or reused" pursuant to 40 C.F.R. § 261.4(b)(1). However, the Supreme Court determined in City of Chicago v. Environmental Defense Fund, 114 S. Ct. 1588 (1994) that this exemption does not extend to ash generated by a solid waste facility. Similarly, this exemption does not extend to leachate generated by such a facility, even if it is handling only household waste.

The leachate collected at your facility is, therefore, a solid waste under RCRA for which a hazardous waste determination is required to determine whether the leachate contains listed hazardous wastes or exhibits any of the hazardous characteristics. This determination must be conducted and known prior to any off-site shipments of this waste. Analytical results received after the leachate has been shipped off-site is an improper waste determination and defeats the purpose for sampling the leachate and conducting such a determination in the first place.

Therefore, pursuant to 40 C.F.R. § 262.11 and the corresponding New Hampshire regulations, the NH/VT Solid Waste Project is required to determine whether the leachate generated from the operation of the ash landfill is a hazardous waste. Such a determination must include the testing of sludges or sediments that may accumulate in the leachate collection tanks. Should the test results indicate that the leachate or sludges/sediments generated by the operation of the ash landfill are hazardous, the NH/VT Solid Waste Project would be required to submit a Notification of Hazardous Waste Activity, obtain a RCRA facility identification number and comply with all applicable RCRA requirements, including use of a hazardous waste manifest and the filing of a one-time notification for wastes shipped to a POTW.

This letter should hopefully clarify your obligations regarding this matter. Please contact me (617) 565-3349 if you have any further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth B. Rota". The signature is fluid and cursive, with the first name "Kenneth" being the most prominent part.

Kenneth B. Rota, Environmental Protection Specialist  
RCRA Technical Office

cc: William Varney, Commissioner, NH DES  
Michael Sills, NH DES - Solid Waste Program  
John Duclos, NH DES - Hazardous Waste Program



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

*Syn...*

January 9, 1998

Mr. James P. Fox  
East Coast Environmental Corp.  
209R Broadway  
Methuen, MA 01844

re: South Bay Incinerator - ash removal

Dear Mr. Fox:

The Hazardous Waste Program Unit of EPA-New England is in receipt, by fax, of your letter dated November 14, 1997, and revisions dated November 21, 1997, in which you propose a process to remove and stabilize (treat) lead-contaminated ash from the South Bay Incinerator site. It is my understanding that you also had a phone conversation with Sharon Leitch of the EPA-New England Hazardous Waste Program Unit on January 5, 1998, in which you indicated that you no longer intend to treat the lead contaminated ash at the South Bay Incinerator site but will be shipping it off-site as a hazardous waste. Although treatment will not be occurring at the site EPA would like to clarify its position regarding the above proposed process.

In the above referenced letter you stated that you intend to treat any ash containing leachable lead in excess of the regulatory limit of 5.0 ppm by mixing it with a Portland Cement slurry as necessary to reduce the TCLP to less than 5.0. You also indicated that you feel free to conduct the proposed process as outlined based upon a February 3, 1995, federal determination in which you believe that fly ash from municipal incinerators is exempt from regulations for hazardous waste treatment until the ash exits the building.

EPA does not believe that the ash is exempt from hazardous waste treatment regulations until it exits the building. Rather, the federal determination of February 3, 1995, you refer to as allowing this exemption is based upon a May 2, 1994, Supreme Court ruling on the regulatory status of Municipal Waste Combustion Ash from resource recovery facilities. In that ruling the Supreme Court issued an opinion that ash generated at resource recovery facilities was not exempt from RCRA Subtitle C



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Mr. James Fox  
Page 2  
January 9, 1998

regulations if the ash was tested and determined to be a hazardous waste. EPA-HQ clarified the point of determination of RCRA Subtitle C jurisdiction for municipal waste combustion ash in a statutory interpretation published in the February 3, 1995 Federal Register (60 FR 6666). In that determination EPA believed that the application of RCRA to the ash after it leaves the resource recovery facility would remove "potentially significant impediments" (see 60 FR 6666) to a facility whose purpose meets the intent of the RCRA statute (i.e. recovering resources). The Agency also defined what is meant by "resource recovery facility" in a March 22, 1995, memo which indicated that the definition did not include ash handling operations allowing exposure to the environment. Therefore, as soon as any ash from these facilities was exposed to the environment RCRA Subtitle C requirements would apply. While your proposal indicates that the treatment of the ash will be occurring inside the existing building EPA does not feel that the application of the February 3, 1995, determination is appropriate in this case since the South Bay Incinerator is no longer an operating facility.

As indicated above, the ash contains lead which may be found at levels that would define it as a hazardous Toxicity Characteristic (TC) waste. The TC rule was promulgated by EPA under the authority of the Hazardous and Solid Waste Amendments (HSWA) and therefore is implemented by EPA in all states until such time that the states become authorized for the rule. The Commonwealth of Massachusetts will be seeking authorization for the TC rule during 1998. The implications of this on your situation would be that if the process is deemed to need a RCRA Part B permit because of the TCLP test, EPA would be the permit issuing authority in states that do not have TC authorization.

The possible exclusion from permitting which may apply to your process is found in 40 CFR § 264.1, which states that the requirements of Part 264 - Standards for owners and operators of hazardous waste TSDFs, do not apply to:

A generator accumulating waste on-site in compliance with 40 CFR § 262.34. In connection with such accumulation, the EPA also has determined that permits are not required for generators treating their hazardous wastes in the generators' tanks or containers in conformance with the requirements of § 262.34 and Subparts I or J of Part 265. See 51 Fed. Reg. at 10168 (March 24, 1986), and 40 C.F.R. § 268.7(a)(4).

In order to qualify for this exemption from the permitting requirement, the waste must be treated by the generator and stored for no more than 90 days. In addition, the waste must be treated within tanks or containers as defined in 40 C.F.R. § 260.10. Please

Mr. James Fox  
Page 3  
January 9, 1998

note that the South Bay Incinerator building does not meet the definition of a tank or container. Thus far, it has not been demonstrated that the building meets the definition of a containment building in accordance with 40 CFR Part 264, Subpart DD. Also, we understand that the use of the "Vactor" is intended for the transfer of material not as a container for storage. Additionally, the accumulation and storage of waste in piles on the tipping room floor prior to treatment would not meet the permitting exemption requirements unless the building meets the definition of a containment building. Finally, all parts of your system involved in storing and treating the waste must meet the requirements of 40 C.F.R. § 262.34 and 40 C.F.R. Part 265, Subparts I or J, and Subparts AA, BB, and CC. In order to be excluded from the permitting requirement, you need to ensure that all of these requirements are met.

Assuming that you do qualify for the exemption from permitting, you must still meet all applicable generator requirements. In removing any ash which is a hazardous waste, you are considered to be generating a hazardous waste, even if it is then rendered non-hazardous by your treatment. The applicable requirements include obtaining an EPA ID number as the generator of a hazardous waste. 40 C.F.R. § 262.12.

In addition, while the stabilized ash will be non-hazardous if it does not fail the Toxicity Characteristic, it still must meet all applicable land disposal restrictions (LDR). The current LDR treatment standard for lead for this type of waste is 5.0 mg/l TCLP. As a generator treating wastes subject to LDR, you also will be required to develop and follow a written waste analysis plan pursuant to 40 C.F.R. § 268.7(a)(4).

Although an EPA permit will not be required for the stabilization process if you meet the requirements stated above, you are reminded that individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, you will need to contact the state for a determination regarding its views on the regulatory status of the stabilization process and on the disposal of the treated ash. Since Massachusetts is authorized for the base RCRA program, which includes sections 261, 262, and 264 of 40 CFR, it maintains the authority to make more stringent determinations regarding exclusions.

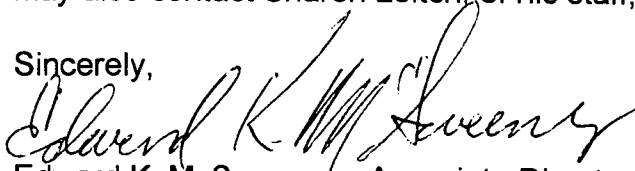
In summary we believe for reasons previously discussed that an EPA hazardous waste permit will not be required for the above proposed activity if you meet the requirements discussed above. However, East Coast Environmental Corp. will be subject to federal generator requirements, including LDR requirements, and also should contact the MADEP to determine if there are provisions that are more stringent or broader in scope than EPA's.

Mr. James Fox  
Page 4  
January 9, 1998

As initially stated, it is our understanding that the lead-contaminated ash will no longer be treated on-site but will be shipped off-site as a hazardous waste. Therefore, a determination regarding the status of the proposed process with respect to an exemption from the hazardous waste permitting regulations is not necessary. You are, however, responsible for meeting all applicable generator requirements pursuant to 40 CFR Part 262 and any other applicable state or federal hazardous waste regulations.

If you have any questions regarding this or any other issue, please do not hesitate to contact Gary Gosbee, Chief, Hazardous Waste Program Unit at (617) 565-3725. You may also contact Sharon Leitch, of his staff, at (617) 565-4879.

Sincerely,



Edward K. McSweeney, Associate Director  
Waste Policy

cc: G. Gosbee, Chief, Hazardous Waste Program Unit, EPA  
K. Rota, Acting Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
J. Miller, Chief, Waste Branch, MADEP  
A. Nardone, Licensing & Permitting, MADEP  
E. Pawlowski, North East Regional Office, MADEP  
J. Carrigan, Compliance Assessment Branch, MADEP  
B. Sirull, Waste Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Supervising Engineer, RIDEM  
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1**

**1 Congress Street, Suite 1100  
BOSTON, MA 02114-2023**

December 20, 1999

David B. Mercier  
Associate Counsel  
Department of the Navy  
Naval Undersea Warfare Center Division  
1176 Howell Street  
Newport, RI 02841-1708

Dear Mr. Mercier:

This is in response to your letter of December 8, 1999 regarding your battery recycling program. You utilize as energy sources for some of your laboratory systems, silver-zinc batteries which are rechargeable. When these batteries can no longer hold charges sufficient to allow further use, you plan to ship them from your facility in Rhode Island to a facility in another State for recovery of their silver content. You have indicated that your batteries would flunk the TCLP test. Thus they would be classified as a hazardous waste when they are "discarded" (e.g., when sent for silver reclamation). 40 CFR § 273.2(c)(1).

Your first question is whether the streamlined hazardous waste management requirements of the Universal Waste Rule currently apply to the collection, storage and transportation of your batteries. The answer is yes. As you know, the Mercury-Containing and Rechargeable Battery Management Act specifies that the EPA's Universal Waste Rule shall apply to the collection, storage and transportation of used "rechargeable batteries," (assuming they are hazardous) unless and until the EPA approves a State universal waste program for such batteries. 42 U.S.C. 14323. As you note, silver-zinc batteries meet the definition of "rechargeable battery" found at 42 U.S.C. § 14302. Since Rhode Island has not yet been approved to administer the Universal Waste Rule, applicable provisions of the EPA's Universal Waste Rule (40 CFR Part 273) currently apply to the management of your batteries in Rhode Island. If shipped to another State, your batteries will either remain subject to the EPA's Universal Waste Rule, or become subject to the State's universal waste rule if such a rule has been approved.

While other provisions of the Mercury-Containing and Rechargeable Battery Management Act refer only to more limited categories of batteries such as nickel-cadmium and small sealed lead-acid batteries, the Congressional directive applying the Universal Waste Rule applies more broadly to all "rechargeable batteries" that are hazardous, including your batteries.

Your second question is whether the provisions of the Universal Waste Rule take precedence over the provisions of 40 CFR § 266.70, regarding recycling of materials utilized for precious metals recovery (e.g., silver). For the collection, storage and transportation of your batteries, you may follow the provisions of the Universal Waste Rule and do not need to also follow the requirements of 40 CFR § 266.70. The Congress has specified that the streamlined requirements of the Universal Waste Rule shall apply to "rechargeable batteries" that are hazardous wastes. This is so even if another (less extensive) exemption from full hazardous waste requirements might also apply. Thus, you do not need to utilize the hazardous waste manifest for shipments of your batteries, pursuant to 40 CFR § 266.70, but rather may follow the more streamlined collection, storage and transportation requirements set out in 40 CFR Part 273.

The EPA encourages recycling programs like the one you are planning. Please feel free to contact us again should you have any further questions.

Sincerely,



Edward K. McSweeney  
Associate Director for Waste Policy  
Office of Ecosystem Protection

cc: Jeffry Fowley, EPA, ORC  
Ken Rota, EPA, OES  
Gary Gosbee, EPA, OEP  
Anne Fenn, EPA, Fed. Fac.  
Leo Hellested, RI DEM



DEPARTMENT OF THE NAVY  
OFFICE OF COUNSEL  
NAVAL UNDERSEA WARFARE CENTER DIVISION  
1176 HOWELL STREET  
NEWPORT RI 02841-1708

IN REPLY REFER TO:

5090  
Ser 9000C/303  
8 Dec 99

Mr. Kevin McSweeney  
RCRA Program Manager  
U.S. EPA, Region 1  
1 Congress Street  
Boston, MA 02114-2023

Dear Mr. McSweeney:

I am writing at the recommendation of Mr. Jeff Fowley in your Office of Regional Counsel to request a determination on the appropriate management of certain expended rechargeable batteries.

This Command is a research, development, test, and evaluation laboratory for U.S. Navy undersea vehicle and weapons technology. One of the energy sources available for some of our systems is a silver-zinc battery. This battery is rechargeable, but after a number of evolutions it can no longer hold a charge sufficient to allow further use. Expended batteries would be transferred to another facility for recovery of their silver content.

As you are aware, Rhode Island has not yet adopted the Universal Waste Rule. Nonetheless, we would be able to utilize the battery provisions of the Universal Waste Rule if our silver-zinc batteries are covered by Chapter 137 of Title 42 of the U.S. Code, the Mercury Containing and Rechargeable Battery Act (42 U.S.C. §§ 14301 et seq.). Silver-zinc batteries meet the definition of "rechargeable battery" found at 42 U.S.C. § 14302. Other language in Chapter 137, however, could be read to suggest that these provisions are currently only applicable to nickel-cadmium and small sealed lead-acid batteries.

The questions we would like you to address are:

- (1) Do the provisions of the Mercury Containing and Rechargeable Battery Act apply to silver-zinc batteries?
- (2) If the answer to question (1) is yes, does the Mercury Containing and Rechargeable Battery Act take precedence over the provisions of 40 CFR § 266.70, Recyclable Materials Utilized for Precious Metals Recovery?

Should you have questions, or require additional information, please call me at (401) 832-3653.

Thank you for your assistance in this matter.

Sincerely,

*David B. Mercier*

David B. Mercier  
Associate Counsel

Copy to:

Mr. Jeff Fowley  
Office of Regional Counsel  
U.S. EPA, Region 1

Ms. Anne Fenn  
Federal Facility Program Manager  
U.S. EPA, Region 1



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

December 9, 1999

Mr. Robert A. Beauclair  
Room 8618 Pavillon Parent  
Laval University  
Quebec City Q.C.  
Canada G1K-7PA

re: Used Oil Filters

Dear Mr. Beauclair:

This letter is in response to your correspondence addressed to Mr. Gary Gosbee of this office in which you request a confirmation from the Environmental Protection Agency (EPA) stating it is within EPA's "norms" to allow the sale of hot-oiled emptied used automobile and truck oil filters. These filters are destined for scrap dealers and scrap automobile processors in the United States (US) and, in particular, the EPA-New England Region. You indicated in your letter that these items would be entering the US at the border of the State of Vermont.

EPA cannot provide you with a specific answer to your request but we can provide the following which is an outline of the Federal (EPA) requirements regarding used oil and material containing used oil. Please note that the State of Vermont, in accordance with Section 3006 of the Resource Conservation and Recovery Act (RCRA), is authorized to administer and enforce the base RCRA program in lieu of the federal program. In particular, Vermont has regulatory authority regarding solid and hazardous waste determinations and the handling of used oil filters. Therefore, you should consult with the appropriate State personnel listed below regarding your request.

In accordance with the Federal regulations found at Title 40 of the Code of Federal Regulations, Part 279, Section 10(c) [40 C.F.R. § 279.10(c)], regarding used oil and materials containing used oil, such materials might not be subject to the Used Oil regulations of Part 279. These regulations do not apply if "the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material". However, you also need to check with the state whether full hazardous waste regulations apply. Your oil filters may still be subject to the full Federal hazardous waste regulations of 40 C.F.R. parts 124, 260

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Page 2 of 3  
Mr. Robert A. Beauclair  
December 9, 1999

through 266, 268, and 270. However, the Federal regulations at 40 C.F.R. § 261.4(b)(13) specifically exclude non-terne plated used oil filters from the definition of hazardous waste if the filters are not mixed with any of the wastes listed in Subpart D of 40 C.F.R. Part 261 and if these filters have been gravity hot-drained using one of the following methods: (1) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining; (2) Hot-draining and crushing; (3) Dismantling and hot-draining; or (4) Any other equivalent hot-draining method that will remove used oil.

Enclosed with this letter is an "Environmental Fact Sheet" from the EPA (document number EPA530-F-92-010) regarding the proper management of used oil filters which you may find helpful when determining whether or not a filter has been properly drained. If it is your intent to transport used oil filters that meet the definition of hazardous waste into the United States then the regulations regarding the import of hazardous waste found at 40 C.F.R. §262.60 would be applicable to these types of shipments as would the regulations regarding hazardous waste generators found in Part 262.

As indicated above, the State of Vermont has the authority to regulate used oil filters, therefore, you should contact them for their interpretation of how their standards may apply to your situation. In particular, it would be useful if you could provide to the State specific information which would address the following questions:

1. Are materials other than used-oil filters included in the shipments?
2. Are gasoline filters also included in the shipments as scrap?
3. Can the names and locations of the destination facilities be provided?

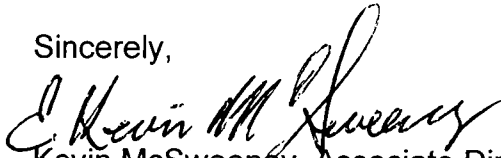
The above information should be forwarded to the following:

Peter W. Marshall, Chief  
Management & Prevention Section  
VTDEC Waste Management Division  
103 South Main Street, West Office Building  
Waterbury, VT 05671-0404  
(802) 241-3868  
email: [peterm@dec.anr.state.vt.us](mailto:peterm@dec.anr.state.vt.us)

Page 3 of 3  
Mr. Robert A. Beauclair  
December 9, 1999

Should you have any questions regarding the above please contact Sharon Leitch, of my staff. She may be reached at (617)918-1647.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin McSweeney". The signature is fluid and cursive, with the first name "Kevin" being more prominent.

Kevin McSweeney, Associate Director of Waste Policy  
Office of Ecosystem Protection

cc: Ken Rota, EPA RCRA Technical Unit  
Jeff Fowley, EPA Office of Regional Council  
Peter Marshall, VTDEC  
John Duclos, NHDES  
Stacy Ladner, MEDEP

) enclosure



# Environmental Fact Sheet

## Properly Managing Used Oil Filters

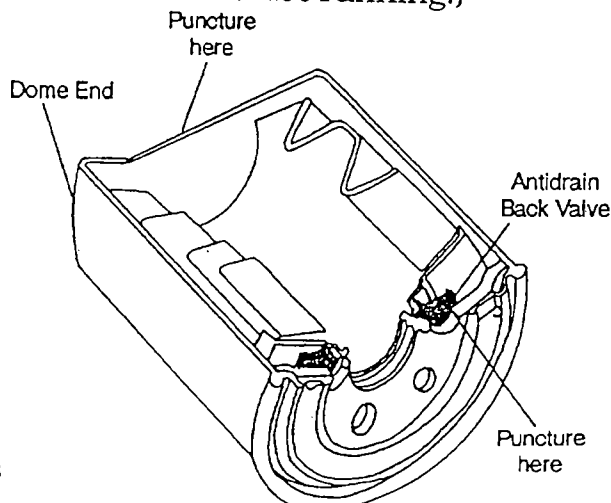
The Environmental Protection Agency (EPA) does not regulate used oil that is being recycled or certain types of used oil filters as hazardous waste. Instead, used oil handlers follow a set of federal management standards (40 CFR Part 279) that are designed to encourage the recycling of used oil. EPA also supports the recycling of **properly drained** used oil filters and their parts. Whole filters and their parts contain reusable scrap metal with high BTU content, which makes them recyclable as scrap feed for steel production, for example.

Used oil filters usually can be taken to the same recycling centers that accept used oil. If no local facilities recycle oil filters, drained filters normally can be wrapped in newspaper and disposed of with regular household trash. (Individuals should check with their local trash collection service before discarding filters because some states don't allow used oil filters to be disposed of in landfills.)

Because used oil is a harmful pollutant, all oil should be **drained** from used filters before they are recycled **or** disposed of. Draining the used oil will prevent any leakage into the environment. Follow this checklist to properly drain an oil filter.

- ✓ If necessary, use a filter wrench to loosen the old oil filter. Carefully remove it.
- ✓ The most effective way to drain a filter is to carefully puncture a hole in the dome end of the filter or through the antidrain back valve with a suitable tool, such as a screwdriver. Puncturing the filter breaks the vacuum and allows the "trapped" oil to be recovered for recycling. (Antidrain back valves are contained in most automotive filter models. The valve consists

of a rubber flap that creates a vacuum to prevent oil from draining back into the engine when it is not running.)





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COPY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 30, 1999

Mr. Donald Kemp  
Nu-Chrome Corp.  
Fall River Industrial Park  
161 Graham Road  
Fall River, MA 02720

Re: Status of F006 waste stream

Dear Mr. Kemp:

This letter is in response to your correspondence dated June 9, 1999 in which you request EPA's assessment of your F006 waste stream. In particular you ask three specific questions which are listed below and include the Agency response.

1. Does the F-006 classification apply to all wastewater treatment sludges generated by an electroplating operation? Yes, except as specified in the listing. An F-006 waste is defined under the listing as "Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum (see 40 C.F.R. §261.31).
2. Does the F-006 classification apply only to those wastewater treatment sludges generated from an electroplating operation utilizing process solutions containing cadmium, complexed cyanides, hexavalent chrome, and/or nickel? No, the F-006 classification applies to the wastewater treatment sludges from all electroplating operations except as indicated in the listing (see above).

3. Is segregation of F-006 point sources an acceptable option to prevent the F-006 classification from being assigned to wastewater treatment sludges generated from point sources that do not have the F-006 toxic constituents? Since the question is posed in such a way that would require further clarification in order for EPA to provide a simple yes or no answer we provide the following as a response to this question. As a point of clarification we would like to restate that it is the process that determines whether a waste carries the F-006 listing and not the toxic constituents which may be present.

Any mixture of solid waste and one or more listed hazardous wastes must be managed as a hazardous waste unless such mixture has been "delisted" (see 40 C.F.R. §261.3(2)(iv)). As an example, for any wastewater that would be considered non-hazardous (i.e. domestic sewage) that is combined with a wastewater from an electroplating operation, the resultant wastewater treatment sludge would be considered an F-006 waste, no matter what toxic constituents are present and what percentage of the sludge originates from the electroplating operation.

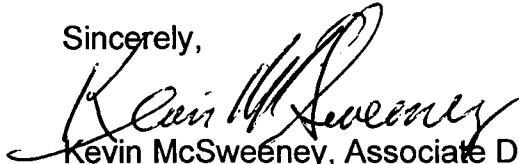
In the final paragraphs of your letter you request EPA concurrence of the regulatory status of wastes under eight proposed scenarios. It is unclear from the narrative and illustrative portions associated with the scenarios precisely what is occurring, therefore we cannot provide any specific assessment of them. In general, however, it appears that under all of the scenarios an F006 waste would be produced since they all involve an electroplating operation. EPA believes that the answers to the above questions will provide you with sufficient information to determine the status of the waste under each scenario. We would also like to restate, as indicated above, that wastewater treatment sludges from any electroplating operation except from those specifically excluded under the F-006 listing are considered a listed hazardous waste, the absence or presence of certain toxic constituents, i.e. zinc cyanide, is not a determining factor. Additionally, we would like to remind you that it is the responsibility of the generator of the waste to make the determination as to whether or not it is a hazardous waste and is ultimately responsible for the appropriate management of such wastes.

In accordance with Section 3006 of RCRA, the State of Massachusetts is authorized to administer and enforce the base RCRA program in lieu of the federal program and, in particular, has the authority to make waste determination decisions. You should consult with the appropriate State personnel regarding hazardous waste determinations.

Page 3 of 3  
Mr. Donald Kemp  
July 30, 1999

Should you have any questions regarding the above please contact Sharon Leitch, of my staff. She may be reached at (617)918-1647.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin McSweeney". The signature is fluid and cursive, with the first name "Kevin" being more prominent than the last name "McSweeney".

Kevin McSweeney, Associate Director of Waste Policy  
Office of Ecosystem Protection

cc: Ken Rota, EPA RCRA Technical Unit  
Jeff Fowley, EPA Office of Regional Council  
Bill Sirull, MADEP Bureau of Waste Prevention  
Eric Johnson, MADEP Southeast Region



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

*Stephen Jee*

April 14, 1999

OFFICE OF THE  
REGIONAL ADMINISTRATOR

The Honorable Eileen M. Daily  
Environment Committee  
Legislative Office Building, Room 3200  
Hartford, CT 06106-1591

Dear Senator Daily:

Thank you for your letter of March 5, 1999, regarding whether the Environmental Protection Agency (EPA) concurs with the interpretation by the Connecticut Superior Court decision in Oxford Tire Supply vs. Commissioner of Revenue Services and whether EPA classifies waste tires as a hazardous waste.

In general, the EPA considers waste tires to be a form of non-hazardous solid waste. As a solid waste, EPA has encouraged the recycling and reuse of the waste tires. Waste tires are not specifically listed as a hazardous waste under the Resource Conservation and Recovery Act (RCRA). Under RCRA, however, if a solid waste that is not listed nevertheless exhibits a characteristic of hazardous waste as defined 40 CFR Part 261, Subpart C (261.20 to 261.24), then the waste must be handled as a hazardous waste.

In your letter, you asked whether EPA concurs with the interpretation that was cited on Page 7B of the Connecticut Superior Court decision in Oxford Tire Supply vs. Commissioner of Revenue Services that the combustion risk of tires met the criteria of 40 CFR 261.21(a)(2) for an ignitable characteristic hazardous waste. The regulation (40 CFR 261.21(a)(2)) for an ignitable solid states, "It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and when ignited, burns so vigorously and persistently that it creates a hazard." The Agency believes that the cited regulation may not have been interpreted correctly. It appears that the determination of whether the tires met the characteristic of being a hazardous waste may have been confused with the risk associated with the combustion of tires. The regulation (40 CFR 261.20) calls for the testing of the material to determine whether any of the characteristic criteria are met to be considered a hazardous waste. EPA believes that the waste tires will not spontaneously catch fire or catch fire through friction or absorption of moisture under normal handling conditions in a manner that will create a hazard.

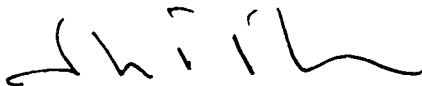
To further clarify the determination of whether a solid waste met the characteristic of ignitability, EPA on June 13, 1997, published a final rule (60 FR 32451) which amended its hazardous waste regulations for testing and monitoring activities. The amendment added a test method (Method 1030) for testing the ignitability of solids to the EPA- approved test methods manual "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA publication SW-846.

However, we are not aware of any analytical results for waste tires from the use of this test method for waste tires. A copy of this test method is enclosed for your information.

In addition, we have contacted the CTDEP Bureau of Waste Management, Waste Engineering and Enforcement Division to get their assessment on this matter. The CTDEP has been authorized by EPA to implement the provisions of 40 CFR Part 261 - Identification and Listing of Hazardous Wastes and the state provisions are the regulations that are in effect. The CTDEP has provided EPA with a memorandum dated January 21, 1999 from David Nash to Jack Looney, concerning the Department's opinion relative to the court decision. EPA has reviewed the memorandum and supports the main points made in the memorandum relative to the court decision. A copy of this memorandum is also enclosed for your information.

If you have any questions relative to the CTDEP memorandum, you should contact Ms. Yvonne Bolton at (860) 424-3023. If you have any questions concerning the federal program, please do not hesitate to contact me or Stephen Yee of the Hazardous Waste Program Unit in the Office of Ecosystem Protection at (617) 918-1197.

Sincerely,



John P. DeVillars  
Regional Administrator

Enclosures

cc: Jane Stahl, CTDEP  
Richard Barlow, CTDEP  
Kevin McSweeney, EPA-New England  
John Hackler, EPA-New England  
Representative Jessie Stratton

*Let me know, Eileen,  
if there is more we  
can do on this. Hope  
you're well.*





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

OFFICE OF THE  
REGIONAL ADMINISTRATOR

April 9, 1999

Kevin McManus, Director  
Toxic Reduction and Control Department  
Massachusetts Water Resources Authority  
Charlestown Navy Yard  
100 First Avenue  
Boston, MA 02129

Re: Hazardous Waste at Metal Plating Facilities

Dear Mr. McManus:

This is in response to your request for a regulatory interpretation dated August 31, 1998. This letter modifies and supersedes our earlier response dated October 22, 1998. In answering your questions, I will first address how we interpret our federal RCRA regulations. I will then address how federal and state requirements interact.

Regulation of Wastewaters Stored or Transported On-Site

You first note that the MWRA has found several metal plating facilities that deliver waste from industrial processes to their wastewater treatment systems by means other than direct piping. The most common methods are hand-carrying waste in buckets, or collecting it in containers and transferring it on wheeled dollies. You state that the MWRA believes that these metal-bearing wastes and acids are likely to be either listed (e.g., F007-F009) or characteristic hazardous wastes. You ask what hazardous waste requirements apply to this situation.

RCRA generator requirements apply when wastewaters are stored, accumulated or transported on-site in the manner described above. As explained below, none of the EPA exemptions from hazardous waste generator requirements apply to this situation:

1. 40 CFR §§ 264.1(g)(6), 265.1(c)(10) and 270.1(c)(2)(v) exempt owners and operators of wastewater treatment units from

the hazardous waste treatment, storage and disposal facility requirements set out in 40 CFR parts 264, 265 and 270 respectively.<sup>1</sup> These provisions also have been interpreted by the EPA's national program offices to exempt operators of wastewater treatment facilities from compliance with the RCRA generator storage requirements set out in 40 CFR ~~§ 262.34~~. However, this exemption applies only to "wastewater treatment units," which include only the "tanks" or "tank systems" associated with such units. Containers and buckets obviously are not "tanks." They also do not fall within the "ancillary equipment" which is part of "tank systems." See 40 CFR § 260.10.

2. 40 CFR § 261.4(a)(2) exempts industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act from hazardous waste requirements. However, as stated in the EPA ~~"Comment" following~~ this regulation, "this exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge...."

3. 40 CFR § 261.4(a)(1)(ii) similarly exempts mixtures of industrial wastes and domestic sewage from hazardous waste requirements. However, this exemption applies only when the industrial wastes mix with domestic sewage upon or after being discharged, and does not exempt industrial wastewaters from hazardous waste requirements prior to discharge.

4. 40 CFR § 261.5(c)(2) provides that wastewaters need not be counted by generators as hazardous wastes when they are "managed immediately upon generation only in ... wastewater treatment units." But this provision applies only when wastewaters are managed immediately upon generation and only in wastewater treatment units. The EPA interprets this as meaning that the exclusion applies only when the wastewaters are transported from the point of generation (e.g., industrial process tank) to the wastewater treatment system/discharge point only through hard-piping. Thus this exemption does not apply when hazardous wastes are stored or transported in containers or buckets or other such devices.

5. 40 CFR § 261.5(c)(2) also provides that wastes need not be counted by generators as hazardous wastes when they are managed

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<sup>1</sup> This exemption is subject to the caveats regarding dilution of certain ignitable and reactive wastes set out in 40 CFR §§ 264.1(g)(6) and 265.1(c)(10).

immediately upon generation only in totally enclosed treatment facilities. But for the same reasons discussed in item 4 above, this exemption does not apply when hazardous wastes are stored or transported other than through hard-pipes.

Since none of the exemptions apply, any regulated entity storing, accumulating or transporting wastewaters on-site other than through hard piping must comply with all applicable RCRA generator requirements. These include, first, that the regulated entity must make determinations regarding whether the wastewaters are hazardous wastes in accordance with 40 CFR § 262.11.

Second, any wastewaters which are hazardous must be counted in determining whether the entity is a large quantity generator, ~~small quantity generator or conditionally exempt small quantity~~ generator under federal law. Depending upon its overall status, the entity must then comply either with the large quantity generator requirements set out and referenced in 40 CFR § 262.34(a) and elsewhere in 40 CFR part 262, or the small quantity generator requirements set out and referenced in 40 CFR § 262.34(d) and elsewhere in 40 CFR part 262, or the conditionally exempt small quantity generator requirements set out and referenced in 40 CFR § 261.5.

For large and small quantity generators, these requirements include obtaining an EPA identification number in accordance with 40 CFR § 262.12. Also, any containers in which wastewaters are stored, accumulated or transported must be properly handled. That is, when hazardous wastewater is added to a container from a process tank, the regulated entity must either store the wastewater in compliance with the satellite storage requirements set out in 40 CFR § 262.34(c) or must promptly transport the wastewater to the point of discharge. In either case, labeling requirements (e.g., labeling the container as "hazardous waste") must be followed. If there is storage at other than the point of initial generation (i.e., at other than a proper satellite location), and other than in a tank which is part of a wastewater treatment system, the full applicable requirements for non-satellite storage (including the 90 or 180 day time limits) must be followed. Note that the accumulation, storage or transportation on-site of hazardous wastewaters may also trigger requirements for such things as RCRA training and the development of a Contingency Plan.

We also specifically note that the practice of transporting hazardous wastewaters in open buckets is not allowed by the federal regulations. Pursuant to 40 CFR § 265.173(a), any

Container holding hazardous waste "must always be closed during storage, except when it is necessary to add or remove waste." This provision is applicable to both large and small quantity generator storage, including satellite storage.

Finally, additional requirements including ~~the use of the~~ Manifest apply when hazardous waste is transported off-site. Off-site means any situation which is not within the definition of "On-site" in 40 CFR § 260.10. Provided that an entity stays within this definition, it may transport hazardous waste between buildings on its property without needing to use a Manifest. But it must of course comply with proper handling requirements, including labeling and the use of a closed container, for the transportation of hazardous waste on-site.

~~In sum, hazardous waste requirements do not apply to wastewaters~~ which are hard-piped from a manufacturing operation to a wastewater treatment system/discharge point, so long as the wastes do not leak prior to discharge or otherwise come in contact with the environment. But entities which are handling hazardous wastewaters on-site outside of wastewater treatment system tanks and tank ancillary equipment (e.g., by transporting or storing in containers) are subject to the same requirements as would apply to any other hazardous wastes being handled on-site.

#### Regulation of Sludge From Wastewater Treatment

You also state in your letter that the MWRA has found facilities accumulating sludge in tanks connected to wastewater treatment systems that is not destined for reintroduction to the treatment systems. In some cases, the accumulation apparently has been considered by the regulated entities to be exempt from RCRA requirements as part of the wastewater treatment system rather than storage subject to hazardous waste requirements. As a result, in at least one case, a facility kept no records and continued accumulating for years.

Whether such wastewater sludge storage is allowed under the federal regulations is the subject of ongoing discussions. Our national program offices have interpreted the provisions in 40 CFR §§ 264.1(g)(6), 265.1(c)(10) and 270.1(c)(2)(v) as exempting wastewater treatment units from the RCRA generator storage requirements set out in 40 CFR § 262.34 as well as from treatment, storage and disposal facility requirements. In addition, these offices have interpreted this exemption as covering wastewater sludge storage, at least when the sludge is being stored in tanks connected to the rest of the wastewater

treatment unit by hard pipes.<sup>2</sup> However, the Environmental Defense Fund and Natural Resources Defense Council have petitioned the EPA to reconsider the wastewater treatment unit exemption. As part of that reconsideration, this Region is urging that the EPA interpret the wastewater unit exemption to NOT cover sludge being stored for shipment off-site. -----

Pending any such reinterpretation of the federal regulations, sources should at a minimum follow the wastewater treatment unit requirements set out in the Massachusetts State hazardous waste regulations. These regulations are a federally enforceable part of the RCRA program in Massachusetts. Under the Massachusetts regulations, tank units which are used "solely for the accumulation or storage of a wastewater treatment sludge prior to disposal on-site or prior to transportation to an off-site facility" are NOT exempt from RCRA requirements. See 310 CMR 30.605 and 30.010 definition of "wastewater treatment unit". Thus storage of hazardous sludge in wastewater tanks is subject to RCRA requirements in Massachusetts, to the extent that this is provided for by the State regulations. For an interpretation of these State regulations, please see the DEP's regulatory interpretation letter sent to you on December 31, 1998. Whether a particular company's storage violates RCRA requirements may of course need to be determined on a case by case basis.

This Region would appreciate being informed of any situations in which sources are storing hazardous wastewater sludge without complying with RCRA generator requirements. First, in light of the reconsideration of the national interpretation of the federal exemption that the Region is urging, we would like to know about any environmental problems resulting from long-term storage of hazardous sludge at generator sites. Second, even under the federal minimum requirements as nationally interpreted, not all on-site storage of wastewater sludge is exempted. The exemption does not apply to sludge being stored in containers, to tanks which have a non-wastewater "dual use" (i.e., when a tank is concurrently used to store wastewater sludge and non-wastewater

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<sup>2</sup> In contrast, none of the exemptions from RCRA requirements other than the wastewater treatment unit exemption apply to the storage in tanks of wastewater sludge. As noted in the "Comment" following 40 CFR § 261.4(a)(2), the exclusion from RCRA regulation of industrial wastewater discharges does not cover "sludges that are generated by industrial wastewater treatment." Similarly, the exclusion in 40 CFR § 261.4(a)(1) from RCRA regulation of industrial wastewaters mixed with domestic sewage does not cover sludges.

sludge), or to situations involving "alternating" use of a tank (i.e., when a tank is used solely for wastewater sludge storage for part of the year and is used for another non-wastewater purpose for another part of the year). Also, the exemption does not apply when sludge leaks from a tank into the environment. Finally, as discussed above, the Massachusetts state RCRA regulations do regulate storage of wastewater sludge. These regulations are enforceable by both the EPA and State and may be useable to address environmental problems caused by the extended and improper storage of wastewater sludge.

#### Need for Compliance With Federal and State Requirements

Currently in Massachusetts, metal finishers and other sources must comply with both federal RCRA regulations and State requirements. This is because while Massachusetts has been authorized to carry out the federal base RCRA program, it has not yet been federally authorized to carry out various updated federal requirements. In particular, the State has not yet been authorized to administer the "TC Rule" covering many of the hazardous wastes. Thus the federal regulations described above apply directly in Massachusetts to all "TC" wastes. The federal regulations also set the minimum standards below which State regulations may not fall.

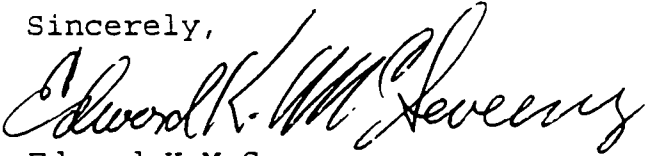
The State, however, has the lead responsibility for the portions of the RCRA program for which it has been authorized, including most regulation of non-"TC" wastes. State regulations must be complied with as a matter of State law, and many of the State regulations are federally authorized and enforceable. Also, the EPA recently proposed to generally approve the DEP to administer the "TC" Rule and hopes to grant final approval shortly.

Thus metal finishers should treat the federal requirements described above as the starting minimum point for compliance. In addition, metal finishers must comply with any more stringent State requirements. As you have requested, the interpretation of the State regulations has come separately from the DEP.

If the MWRA discovers violations of RCRA requirements, notification to EPA should be made to Ken Rota, Chief of the RCRA Technical Section in our Office of Environmental Stewardship. His telephone number is 617-918-1751.

Thank you for your inquiries and for your offer of assistance in bringing about compliance. Please feel free to write again should you have any further questions, or contact our RCRA attorney Jeffry Fowley directly at 617-918-1094. .

Sincerely,

A handwritten signature in cursive script, reading "Edward K. McSweeney". The signature is written in dark ink and is positioned above the printed name.

Edward K. McSweeney  
Associate Director for Waste Policy

cc: Steve DeGabriele, MA DEP  
Ken Rota, EPA - OES  
Gary Gosbee, EPA - OEP



## MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard  
100 First Avenue  
Boston, Massachusetts 02129

File  
"EPA"

Telephone: (617) 242-6000  
Facsimile: (617) 241-6070

August 31, 1998

Mr. Kevin McSweeney  
Associate Director, Waste Policy  
U.S.E.P.A.  
JFK Federal Building  
1 Congress St.  
Boston, MA 02203

Ralph Child, General Counsel  
Massachusetts Department of Environmental Protection  
1 Winter St.  
Boston, MA 02108

Re: Hazardous waste at metal plating facilities

Dear Messrs. McSweeney and Child:

I am writing as a follow-up to discussions between MWRA and Mark Mahoney of EPA concerning hazardous waste management at metal plating facilities. We have corresponded and met with Mr. Mahoney concerning EPA's Common Sense Initiative for Metal Platers, and in the course of those discussions have raised MWRA's concerns with the handling of concentrated plating baths, wastewater treatment sludge, and other hazardous wastes at metal plating facilities. As I wrote to Mr. Mahoney on June 19, 1998, MWRA is concerned that if hazardous waste is improperly handled, it may be released to the sewer at some facilities. MWRA therefore requests clarification from EPA and DEP of their requirements concerning certain practices that we have observed at various metal plating facilities in MWRA's District, as discussed below, and your assistance in communicating these requirements to the metal platers and assuring compliance.

In particular, MWRA is concerned with manual transfer of process wastes to wastewater treatment systems, and long term storage of sludge removed from wastewater treatment systems. MWRA has endeavored to assure that such practices do not threaten to cause violations of MWRA's discharge regulations, but we would also like to be sure that we can identify potential violations of DEP and EPA requirements.



1. Delivery of wastewater (usually concentrated spent plating baths) to treatment systems by means other than direct piping

MWRA has found several facilities that deliver waste from industrial processes to their wastewater treatment systems by means other than direct piping. The most common methods are hand-carrying waste in buckets, or collecting it in containers and transferring it on wheeled dollies. At least one facility transports waste in this manner between buildings and across a parking lot. In most cases, the wastes involved are spent plating baths or acids. MWRA believes that these metal-bearing wastes and acids are likely to be hazardous wastes, either listed (e.g., F007 - F009) or characteristic. We need clarification as to which requirements do apply to these wastes, so that we can be sure that our permit requirements are consistent, and so that we can identify instances of noncompliance and inform your agencies.

Our understanding is that EPA and DEP do not prohibit manual delivery to wastewater treatment systems, but some RCRA requirements may apply to these wastes. EPA's regulations, at 40 C.F.R. §§ 264.1(g)(5) & (6), and 265.1(c)(9) & (10), exempt "totally enclosed treatment facilities," and "wastewater treatment units" (defined in 40 C.F.R. § 260.10) from Parts 264 and 265 (governing treatment, storage and disposal facilities), but other requirements, particularly the generator requirements in Part 262, may apply to metal platers' manually transported wastes. For example, are wastes destined for wastewater treatment units subject to the accumulation provisions of 40 CFR § 262.34, so that they are to be considered in determining the generator's eligibility for small quantity status under § 262.34? MWRA would like to identify specific applicable EPA provisions that metal platers should be aware of.

DEP, at 310 CMR §§ 30.501(2)(b) & (d) and 30.801(4), also exempts "industrial wastewater treatment units," from the management and permitting standards for hazardous waste facilities, but 310 CMR § 30.605 imposes some requirements on "wastewater treatment units for the treatment of hazardous waste at the site of generation of the waste." 310 CMR § 30.010 defines an "industrial wastewater treatment unit" as a unit which serves a discharge subject to regulation under § 307(b) (pretreatment) or § 402 (NPDES) of the Clean Water Act, is used for treatment or storage prior to treatment, and is a "tank." MWRA would like to confirm its understanding that § 30.605 applies to all wastewater treatment units that receive hazardous waste, as well as recycled waste that would be hazardous if it were not recycled (310 CMR § 30.206(3), including units that discharge subject to MWRA permits.<sup>1</sup> In addition, the terms of § 30.605 present several questions.

First, we are not sure of the scope and import of the exclusion in § 30.605(1) of "treatment which is an integral part of the manufacturing process," as defined in 310 CMR §

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<sup>1</sup> Section 30.501(2)(d) states that "Hazardous waste activities at such facilities are regulated at 314 CMR 8.00." Section 8.05 requires that facilities comply with 310 CMR § 30.605, and to the operations manual requirement of 314 CMR § 12.04(1). MWRA cannot determine whether § 8.05 applies to dischargers to the sewer.

30.010. The definition requires a connection "via pipes or the equivalent from an industrial production process (i.e., a process which produces a product . . .)" and requires that the system be "totally enclosed," as defined therein. The definition of "totally enclosed" is comparable to EPA's definition of a "totally enclosed treatment facility" in 40 CFR § 260.10. DEP's definition requires if the treatment unit discharges effluent to the sewer, it is "deemed totally enclosed" only if the discharges are in compliance with all applicable laws and permits. It is not clear to us what the consequence is of excluding these systems from § 30.605: apparently the result is that no hazardous waste requirements apply to a system that is connected to an industrial process "via pipes or the equivalent." However, MWRA does not know what DEP considers "the equivalent" of pipes. Hand-carrying, open troughs, and other conveyances to treatment systems, could all arguably be "the equivalent" of pipes, and thus excluded from § 30.605. Moreover, a facility that might otherwise be "deemed totally enclosed" apparently should lose that status if it does not comply with its MWRA permit. Some of the facilities that we know to be using hand-carrying have long histories of MWRA violations.

Second, § 30.605(1) provides that the section does not apply to wastewater treatment units that receive hazardous waste generated "off the site where the . . . unit is located." As noted above, at least one metal plater with an MWRA permit transports waste, which we believe to be hazardous waste, between buildings. MWRA is not sure that it knows how DEP and EPA would address this practice. According to the definition in 310 CMR § 30.010, a "site" may include different buildings on contiguous properties, so apparently this facility is not treating "offsite" wastes. However, we would like to be able to clarify the circumstances that would constitute "offsite."

Third, there are many requirements in § 30.605 that are apparently being ignored at many facilities. For example, subsection (2) incorporates management standards from 310 CMR § 30.500, and subsection (4)(a) calls for the operator to submit a waste analysis plan prepared in compliance with 310 CMR §§ 30.513 and 30.605(2)(b) and (4)(b) to DEP and to the POTW. MWRA has not been receiving waste analysis plans prepared in compliance with § 310 CMR § 30.513. MWRA has sought to enforce EPA's requirements in 40 CFR § 403.12(p)(1), which requires that Industrial Users of POTWs notify the POTW and EPA's Waste Management Division Director, in writing of discharges of hazardous wastes, or substances that would be hazardous wastes but for their discharge to the sewer. However, such notification does not appear to be equivalent to the waste analysis plan required by §§ 30.513 and 30.605(2)(b), which are presumably equivalent to the waste analysis requirements of 40 CFR § 264.13. MWRA would like clarification as to what is required to comply with 310 CMR § 30.513, and what MWRA should be receiving.

## 2. Long term storage

310 CMR § 30.605(1)(a)(2) provides that hazardous waste management standards of 310 CMR §§ 30.500 through 30.999 do not apply to "wastewater treatment units for the accumulation or storage, at the site of generation, of wastewater treatment sludge which is hazardous waste, prior to reintroduction of such sludge back into the wastewater treatment

process." (Emphasis added). MWRA has found facilities accumulating solids in tanks connected to treatment systems that are not destined for reintroduction to the treatment system. In some cases, the accumulation has apparently been considered part of the treatment system rather than storage subject to hazardous waste requirements. As a result, in at least one case, the facility kept no records and continued accumulating for years.

### 3. Issues to be resolved

MWRA has found that some metal platers are unaware of the potential scope of these requirements affecting manually transported wastes, treatment units, and storage tanks. MWRA would like to work with DEP and EPA to determine whether the practices observed by MWRA are in fact permissible (e.g., manually transporting process waste between buildings), to inform the metal platers of applicable hazardous waste requirements, and to alert DEP and EPA to potential violations.

To summarize, MWRA would like to clarify the following:

- i. The hazardous waste management requirements, in 310 CMR § 30.605(2)-(4) and elsewhere, that apply to metal platers that deliver process waste to wastewater treatment units by means other than direct piping; in particular:
  - (1) What generator requirements in Part 262, and 310 CMR § 30.340-.350, or other DEP requirements, should these facilities be aware of and comply with? and
  - (2) What is required to comply with 310 CMR § 30.513, and what MWRA should be receiving under § 30.605(4)?
- ii. The circumstances that would exempt a facility from such requirements, in particular, what is a "pipe or equivalent," sufficient to render a treatment process "an integral part of the manufacturing process," exempt under § 30.605(1);
- iii. When does sludge accumulation in a tank become long-term storage of hazardous waste (assuming the sludge is F006 listed hazardous waste); and
- iv. How would DEP and EPA like to be informed of apparent violations? MWRA would be willing to coordinate with DEP in inspecting and informing facilities of applicable requirements.

I look forward to working with you to clarify these issues. Please feel free to contact Charles Bering on my staff, at (617) 241-2309, to discuss this further.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Kevin McManus", with a horizontal line extending from the end of the signature.

Kevin McManus, Director  
Toxic Reduction and Control Dept.

cc: Mark Mahoney, EPA  
Jeffrey Fowley, EPA  
Joe Canzano, EPA



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

FYI:

- Maria  
- Steve  
- Compendium

April 5, 1999

Mr. William Sirull  
MADEP Bureau of Waste Prevention  
Business Compliance Division  
One Winter Street  
Boston, MA 02108

Subj: MADEP/EPA ERP Meeting follow-up

Dear Bill:

The purpose of this letter is to provide you with follow-up to our meeting on Tuesday, March 2, 1999, at your Office regarding specific questions you had relating to EPA's position/interpretation of certain aspects of particular RCRA permitting exemptions as they relate to the proposed MADEP Industrial Wastewaters ERP Program. As we have said in past correspondence, since Massachusetts is authorized for the RCRA base program which includes the definition of hazardous waste, it maintains the authority to make more stringent regulatory interpretations.

The following is a quick summary of our response to your questions.

Question 1): Under EPA's "totally enclosed" treatment exemption, does the Agency interpret this to mean that the totally enclosed system be directly connected to a treatment process by hard-piping or can flexible piping be used?

Response: As a point of clarification, by hard-piping we are referring to connections composed of some type of metal compound with welded connections. Previous correspondence issued by the EPA ("the Agency") has stated that connections for a totally enclosed system must be composed of impermeable materials which prevent leaking and that these connections be inspected on a regular basis (see Appendix A: 2/18/83 RCRA Permit Policy Compendium letter). The Agency has not directly addressed the type of material that the connections must be made of, however, consideration of a piping system composed of duct work meeting the totally enclosed exemption was discussed in a 2/2/88 memorandum (see Appendix B) provided that the above mentioned conditions were met. A key characteristic of such a system is that it

prevent releases to the environment, EPA Region 1 has stated it's position on this in a letter dated 1/13/97 to Steven DeGabriele of MADEP (see Appendix C). Totally enclosed systems must also be directly connected to an industrial production process (see 40 CFR §260.10). The State should evaluate a system claiming the totally enclosed exemption in order to determine whether or not it meets the criteria for the exemption.

Issue 2): Does EPA have a definition of wastewater?

Response: There is no RCRA regulatory citation for the definition of wastewater. There is reference to a definition in the Land Disposal Restrictions (LDR) First-Third Regulations which defines wastewater as waste containing less than 1% total organic carbon (TOC) and less than 1% total suspended solids (see Appendix D: RCRA Permit Policy Compendium letter dated 5/2/88 and the attached August 17, 1988 Federal Register (FR) notice, 53 FR 31145). EPA correspondence issued prior to that FR notice refers to wastewater as being "...relatively dilute aqueous based wastes..." (See Appendix E: RCRA Permit Policy Compendium letter dated 8/19/86 and accompanying FR notice dated 2/2/82 ). Any claim that a highly concentrated waste is a wastewater should be evaluated carefully, it would be unlikely that it actually is. EPA, therefore, recommends that any assertion of wastes meeting the definition of wastewater that appear to be questionable should be made on a case by case basis by the State using the above assumptions as a reference.

Issue 3): Can wastewater recycling be considered exempt under the closed-loop recycling exemption?

Response: In general, wastewaters are not ordinarily considered to be commercial products (see Appendix F: RCRA Permit Policy Compendium memo dated 10/27/88). The regulations at 40 CFR Part 261, Subpart A, Section 4 (a)(8) specify the conditions which must be met in order to invoke the "closed-loop" recycling exemption. Valuable materials that are returned to the original production process or processes from which they were originally generated and are reused in that process generally can be considered exempt from RCRA. Absent any case-by-case determination to the contrary, wastewaters are not considered to be such valuable materials. By production process, the Agency means those activities that tie directly into the manufacturing operations (see Appendix G: RCRA Permit Policy Compendium memorandum dated 11/28/86).

Bill Sirull  
Page 3  
April 5, 1999

Should you have any questions regarding the above please contact me. I can be reached at (617)918-1647.

Sincerely,

A handwritten signature in black ink, appearing to read "Sharon M. Leitch", written over a horizontal line.

Sharon M. Leitch, Environmental Engineer  
Hazardous Waste Program Unit

enclosures

cc: Jeff Fowley, EPA  
Tom D'Avanzno, EPA  
Gary Gosbee, EPA  
Ken Rota, EPA  
Region 1 Hazardous Waste Policy Compendium, EPA

9432.1983(01)

February 18, 1983

Mr. Duane W. Marshall  
Regulatory Affairs Program Manager  
NCASI  
260 Madison Avenue  
New York, New York 10016

Dear Duane:

The subject of what is and what is not a Totally Enclosed Treatment Facility has come up a number of times since we discussed the issue in July 1980. In the course of answering these questions, we prepared the enclosed Regulatory Clarification, which we now send to everyone that asks. It treats the subject generally, but I think it answers your questions.

If I can provide any further clarification please let me know.

Sincerely yours,

John P. Lehman  
Director  
Hazardous & Industrial Waste Division (WH-565)

Enclosure

bcc: Fred Lindsey

TOTALLY ENCLOSED TREATMENT FACILITY  
Regulatory Clarification

I. Issue: From questions asked since promulgation of the regulations on May 19, 1980, it is clear that the definition and practical application of the term "totally enclosed treatment facility" require clarification.

II. Discussion: The definition appears in §260.10(a) as follows:

Totally enclosed treatment facility means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

A facility meeting this definition is exempted from the requirements of Parts 264 and 265 (See §§264.1(g)(5) and 265.1(c)(9)) and, by extension, the owner or operator of that facility need not notify nor seek a permit for that process. The purpose of this provision is to remove from active regulation those treatment processes which occur in close proximity to the industrial process which generates the waste and which are constructed in such a way that there is little or no potential for escape of pollutants. Such facilities pose negligible risk to human health and the environment.

The part of the definition which has generated the most uncertainty is the meaning of "totally enclosed." The Agency intends that a "totally enclosed" treatment facility be one which is completely contained on all sides and poses little or no potential for escape of waste to the environment even during periods of process upset. The facility must be constructed so that no predictable potential for overflows, spills, gaseous emissions, etc., can result from malfunction of pumps, valves, etc., associated with the totally enclosed treatment or from a malfunction in the industrial process to which it is connected.

---

*This document has been retyped from the original.*

Natural calamities or acts of sabotage or war (earthquakes, tornadoes, bombing, etc.) are not considered predictable, however.

As a practical matter, the definition limits "totally enclosed treatment facilities" to pipelines, tanks, and to other chemical, physical, and biological treatment operations which are carried out in tank-like equipment (e.g., stills, distillation columns, or pressure vessels) and which are constructed and operated to prevent discharge of potentially hazardous material to the environment. This requires consideration of the three primary avenues of escape: leakage, spills, and emissions.

To prevent leaking, the tank, pipe, etc., must be made of impermeable materials. The Agency is using the term impermeable in the practical sense to mean no transmission of contained materials in quantities which would be visibly apparent. Further, as with any other treatment process, totally enclosed treatment facilities are subject to natural deterioration (corrosion, etc.) which could ultimately result in leaks. To meet the requirement in the definition that treatment be conducted ". . . in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment . . . ." the Agency believes that an owner or operator claiming the exemption generally will have to conduct inspections or other discovery activities to detect deterioration and carry out maintenance activities sufficient to remedy it. A tank or pipe which leaks is not a totally enclosed facility. As a result, leaks must be prevented from totally enclosed facilities or the facility is in violation of the regulations.

A totally enclosed facility must be enclosed on all sides. A tank or similar equipment must have a cover which would eliminate gaseous emissions and spills. However, many tanks incorporate vents and relief valves for either operating or

emergency reasons. Such vents must be designed to prevent overflows of liquids and emissions of harmful gases and aerosols, where such events might occur through normal operation, equipment failure, or process upset. This can often be accomplished by the use of traps, recycle lines, and sorption columns of various designs to prevent spills and gaseous emissions. If effectively protected by such devices, a vented tank would qualify as a totally enclosed treatment facility.

When considering protective devices for tank vents, the question arises as to whether the protective device is itself adequate. The test involves a judgment as to whether the overflow or gaseous emission passing through the vent will be prevented from reaching the environment. For example, an open catchment basin for overflows is not satisfactory if the hazardous constituents in the waste may be emitted to the air. Similarly, it may also not be satisfactory if it is only large enough to hold the tank overflow for a brief period before it also overflows. However, even in this situation, alarm systems could be installed to ensure that the capacity of the catchment basin is not exceeded. Where air emissions from vents or relief valves are concerned, if the waste is non-volatile or the emissions cannot contain gases or aerosols which could be hazardous in the atmosphere, then no protective devices are necessary. An example might be a pressure relief valve on a tank containing non-volatile wastes. Where potentially harmful emissions could occur, then positive steps must be taken. For example, the vent could be connected to an incinerator or process kiln. Alternately, a sorption column might be suitable if emission rates are low, the efficiency of the column approaches 100 percent, and alarms or other safeguards are available so that the upset causing the emission will be rectified before the capacity of the column is exceeded. Scrubbers will normally not

be sufficient because of their tendency to malfunction and efficiencies typically do not approach 100 percent.

Tanks sometimes have floating roofs. To be eligible as a totally enclosed facility, such tanks should be constructed so that the roof has a sliding seal on the side which is designed to prevent gaseous emissions and protect against possible overflow.

The part of the definition requiring that totally enclosed treatment facilities be "directly connected to an industrial production process" also generates some uncertainty. As long as the process is integrally connected via pipe to the production process, there is no potential for the waste to be lost. The term "industrial production process" was meant to include only those processes which produce a product, an intermediate, a byproduct, or a material which is used back in the production process. Thus, a totally enclosed treatment operation, integrally connected downstream from a wastewater treatment lagoon would not be eligible for the exemption because the process to which it is connected is not an "industrial production process." Neither would any totally enclosed treatment process at an off-site hazardous waste management facility qualify, unless it were integrally connected via pipeline to the generator's production process. Obviously, a waste transported by truck or rail is not integrally connected to the production process.

Hazardous waste treatment is often conducted in a series of unit operations, each connected by pipe to the other. As long as one end of a treatment train is integrally connected to a production process, and each unit operation is integrally connected to the other, all qualify for the exemption if they meet the requirement of being "totally enclosed." If one unit operation is not "totally enclosed" or is not "integrally connected," then only unit operations upstream from that unit

would qualify for the exemption. The unit and downstream process would require a permit.

The device connecting the totally enclosed treatment facility to the generating process will normally be a pipe. However, some pipes (e.g., sewers) are constructed with manholes, vents, sumps, and other openings. Pipes with such openings may qualify as totally enclosed only if there is no potential for emissions or overflow of liquids during periods of process upset, or if equipment (sorption columns, catchment basins, etc.) has been installed to prevent escape of hazardous waste or any potentially hazardous constituent thereof to the environment.

This exemption for totally enclosed treatment facilities applies only to the facility itself. The effluent from that facility may still be regulated. If the waste entering the totally enclosed treatment facility is listed in Subpart D of Part 261, then the effluent from the facility is automatically a hazardous waste and must be treated as such, unless it is "delisted" in accordance with §§260.20 and 260.22. If, on the other hand, the waste entering the totally enclosed treatment facility is hazardous because it meets one of the characteristics described in Subpart C of Part 261, then the effluent waste is a regulated hazardous waste only if the effluent meets one of the characteristics. Since the totally enclosed treatment facility is exempted from the regulatory requirements, it is only the effluents from such processes which are of interest to the Agency. Thus, whether the waste in a totally enclosed treatment facility must be considered towards the 1000 kg/month small quantity generator limit, depends on whether it is a regulated hazardous waste as it exits the totally enclosed treatment facility.

Finally, it is important to note that if the effluents from a totally enclosed treatment facility are discharged to a surface

water body (lake or stream) or to a publicly owned treatment works or sewer line connected thereto, then these wastes are not subject to the RCRA hazardous waste controls at all but are, instead, subject to the Clean Water Act and regulations promulgated thereunder (See 45 FR 76075).

III. Resolution: In sum, a "totally enclosed treatment facility" must:

- (a) Be completely contained on all sides.
- (b) Pose negligible potential for escape of constituents to the environment except through natural calamities or acts of sabotage or war.
- (c) Be connected directly by pipeline or similar totally enclosed device to an industrial production process which produces a product, byproduct, intermediate, or a material which is used back in the process.

APPENDIX B

**View Record Detail**

Faxback 14022

9432.1988(06)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

February 2, 1988

MEMORANDUM

SUBJECT: Totally Enclosed Treatment System Proposal  
from TDJ Group, Inc.

FROM: Joseph S. Carra, Director  
Waste Management Division

TO: David A. Wagoner, Director  
Waste Management Division  
EPA Region VII

This is in response to your memorandum to Marcia Williams, which has been referred to my division for a response. I have reviewed your request for a determination of the applicability of the totally enclosed treatment (TET) exemption as it applies to the

) process proposed for generic marketing by TDJ Group, Inc. TDJ Group has claimed confidential business information for the description of their treatment system. You have requested clarification on three issues:

1. whether the TDJ Group's proposal meets the TET exemption;
2. guidance on what parts of the treatment train would be considered TET; and
3. the location at which samples must be taken to demonstrate the success of treatment.

The Agency defines a totally enclosed treatment system in CFR as a treatment system that:

1. must be connected to an industrial process; and
2. constructed and operated to prevent the release of hazardous waste and any constituent thereof into the environment during treatment.

In your memorandum, you stated that the TDJ Group's proposal is similar to the proposal received by Region V for the Grede Foundry. The differences between the TDJ proposal and the Grede Foundry are the location of treatment and the method of collecting emissions dust from the cupola. In the TDJ proposal, treatment occurs between the cupola and the baghouse; while treatment occurs after the baghouse at the Grede Foundry. In the TDJ proposal, the

flue dust from the cupola is connected to the treatment system via ducts. In the Grede Foundry, the hood that collects the flue dust was not connected to the cupola but to the baghouse. Because the cupola was open to the environment, the Grede's Foundry treatment system would not qualify for the exemption. In the OSWER directive #9432.00-1, the Agency clarified to Region V that the cupola is part of an industrial production process and that the baghouse is part of a waste treatment process. Therefore, treatment downstream of a baghouse would not qualify for the TET exemption.

The Agency also responded to a letter received by Mr. Swed of RMT, Inc., dated December 22, 1986, requesting guidance on the application of the TET exemption to the treatment prior to the disposal of baghouse dust. In this letter, the Agency restated that cupolas are part of an industrial process while baghouses are part of a treatment process. Any totally enclosed processing that occurs in the ducts directly connecting the cupola to the baghouse would not be treatment subject to the RCRA permitting requirements. However, the baghouse and any treatment downstream of the baghouse would not qualify because the baghouse is open to the environment. This should answer your first and second questions.

Your third question refers to the location at which samples must be taken to demonstrate the success of treatment. Because the treatment system prior to the baghouse qualifies for the TET exemption, the equipment is not subject to the RCRA permitting process. The TDJ Group would have to show, through the design of the treatment system, that the system is totally enclosed. That is, there are no routine leakages of flue dust from the cupola throughout the treatment system. No other sampling is necessary, unless your office believes a sampling program is necessary to assure that no releases occur.

Attached to your memorandum, you have included a detailed description and drawing of the TDJ proposal. Based on our review of the design of the system and our best engineering judgement, the treatment system is totally enclosed because the flue dust from the cupola is transferred through the treatment system via closed ducts. Therefore, there appears to be no possibility of routine releases of the dust to the environment.

In summary, the treatment system prior to the baghouse would qualify for the exemption, but the baghouse and treatment downstream of the baghouse would not qualify for the exemption. In order to determine the effectiveness of the treatment system enclosure, the design of the system must show that the cupola and the treatment train are sealed, thereby preventing routine releases of constituents to the environment. Our review indicates that the TDJ Group design appears to meet these requirements. If your staff has any questions, they should contact Monica Chatmon of my staff on FTS 475-7236.

cc: Marcia Williams  
Waste Management Division Directors, Regions I-X



APPENDIX C  
**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION I**  
**JOHN F. KENNEDY FEDERAL BUILDING**  
**BOSTON, MASSACHUSETTS 02203-0001**

January 13, 1997

Steven DeGabriele, Director  
Division of Hazardous Materials  
Massachusetts Department of Environmental Protection  
One Winter Street, 7th Floor  
Boston, MA 02108

Re: Cellini Purification Systems

Dear Mr. DeGabriele:

The purpose of this letter is to inform you of an issue regarding EPA and State interpretations of RCRA regulations. The attached memo discusses this issue which was raised at a meeting, at the request of the MADEP Innovative Technologies program, with the EPA and MADEP RCRA programs, the MADEP Industrial Wastewater section, and the EOEa on November 21, 1996, regarding Cellini Purification Systems.

Cellini Purification Systems has been working with the State through the Strategic Envirotechnology Partnership (STEP) program. A result of the STEP process was an examination of potential regulatory barriers to the application of the Cellini Controlled Atmospheric Separation Technology (CAST) system. One of the possible barriers identified was the differing EPA and MADEP interpretations of exemptions from RCRA permitting.

EPA has had two meetings with the MADEP and EOEa at which the issues were highlighted and proposed solutions developed. EPA's role at these meetings was to provide the federal regulatory interpretation of the RCRA permitting exemptions as they may apply to the Cellini system. The attached memo discusses those interpretations.

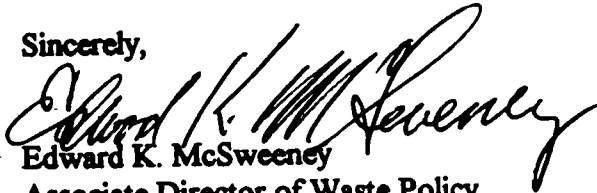
Since each of the New England states are authorized for the RCRA base program they maintain the authority to make more stringent regulatory interpretations. Individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, while the attached memo discusses the federal RCRA interpretation of the relevant regulations, its application may vary in individual states.



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Should you have any questions regarding this memo, please contact me at (617)565-3559. You may also contact Sharon Leitch of the Hazardous Waste Program unit at (617) 565-4879 regarding any technical issues associated with this memo or Jeffry Fowley of the Office of Regional Council at (617)565-1475 regarding any legal issues.

Sincerely,



Edward K. McSweeney  
Associate Director of Waste Policy  
Office of Ecosystem Protection

enclosure

cc: Gary Gosbee, Chief, Hazardous Waste Program Unit, EPA  
Jane Downing, Chief, Massachusetts State Program Unit, EPA  
Suzanne Parent, Chief, RCRA Technical Unit, EPA  
Jeff Fowley, Office of Regional Council, EPA  
Jim Michael, PSPD, EPA-HQ  
Kathy Nam, OGC, EPA-HQ  
Gina McCarthy, EOE  
Linda Benevides, MADEP  
Jim Miller, MADEP  
Stephen Brown, Cellini Purification Systems, Ludlow, MA  
John Duclos, NHDES  
David Sattler, CTDEP  
Steve Simoes, VTDEC  
Leo Hellested, RIDEM  
Stacy Ladner, MEDEP

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

## MEMORANDUM

DATE: January 13, 1997

SUBJ: RCRA Permitting Exemption For "Zero-Discharge" System  
Manufactured by Cellini Purification Systems

FROM: Jeffry Fowley, Lead RCRA Attorney, ORC Region I

TO: Gary Gosbee, Chief, Hazardous Waste Program Section

NON-CONFIDENTIAL: MAY BE DISTRIBUTED TO STATE AND COMPANY

### I. Introduction

The Commonwealth of Massachusetts is working with five other states to encourage the use of innovative technologies. One of the identified technologies is the Controlled Atmospheric Separation Technology™ ("CAST System") developed by Cellini Purification Systems of Ludlow, Massachusetts. The CAST System will sometimes be used to recycle water and eliminate all wastewater discharges at manufacturing facilities. The State has asked for the Region's view regarding whether the CAST System could be exempted from RCRA permitting when used in this manner. The five possible scenarios for using the CAST System without wastewater discharges are shown (labeled ## 1-5) in the diagram attached to this Memorandum. The State has pointed out that treatment units which have wastewater discharges often are exempted from RCRA permitting pursuant to the "wastewater treatment unit" exemption set out in 40 C.F.R. §§ 264.1(g)(6) and 270.1(c)(2)(v). The State has pointed to an alleged "Catch 22" if the RCRA permitting exemption is lost when the environmentally beneficial step is taken of eliminating all wastewater discharges.

### II. Wastewater Treatment Unit Exemption

The State has suggested that even when the CAST System is utilized so that there are no wastewater discharges, the "wastewater treatment unit" exemption should apply. See 40 C.F.R. § 264.1(g)(6). However, this exemption would not apply if the CAST System was installed in a new manufacturing facility that had never had a discharge regulated under the Clean Water Act. As the EPA clarified in the Federal Register, the exemption applies to certain ongoing operations which produce "no treated wastewater effluent as a direct result" of Clean Water Act requirements, but "is not intended to apply" to treatment units at facilities that "are not required to obtain an NPDES permit." 53 Fed. Reg. 34080-34081 (Sept. 2, 1988). See also Letter from Sylvia K. Lowrance, Director, EPA Office of Solid Waste to Thomas

W. Cervino, P.E., Colonial Pipeline Company, dated January 16, 1992, RCRA Compendium # 9522.1992(01) ("If there was never a discharge to surface waters, then the exemption criteria is not satisfied").

I have not examined whether the wastewater treatment unit exemption would apply to even all uses of the CAST System in existing facilities, since that exemption does not apply in any event to new facilities and thus does not address the State's desire to exempt the CAST System from RCRA permitting across-the-board. Moreover, I need not decide to what extent the wastewater treatment unit exemption might apply since, as explained below, I believe the State's concerns can be addressed in the particular case of the CAST System by use of the "totally enclosed treatment" exemption.<sup>1</sup>

### III. Totally Enclosed Treatment Exemption

The EPA's regulations exempt totally enclosed treatment facilities from RCRA permitting. 40 C.F.R. §§ 264.1(g)(5), 270.1(c)(2)(iv). "Totally enclosed treatment facility" is defined in 40 C.F.R. § 260.10. The State similarly exempts "treatment integral to the manufacturing process" from RCRA permitting, and defines that term in 310 CMR § 30.010.

EPA Engineer Sharon Leitch of the Region's Hazardous Waste Program section and I have examined the following documents regarding the CAST System: (i) Report to EPA on Environmental Technology Initiative Grant, by Massachusetts Department of Environmental Protection, entitled "Zero-Discharge Regulations: Evaporation and Distillation of Industrial Wastewater," Case Study no. 3; and (ii) Memorandum from Stephen Brown, Cellini Purification Systems, Inc. to Sharon Leitch, dated December 18, 1996 ("Cellini Submission") [copy attached]. Assuming that all of the representations contained in those documents are accurate, and subject to the caveats set forth below, the CAST System appears capable of meeting all of the requirements to be considered totally enclosed treatment, when used in the scenarios labeled as ## 1-5 in the diagram attached to this Memorandum:

1. A totally enclosed treatment facility must be "directly connected to an industrial production process." 40 C.F.R. § 260.10. As shown in the diagram attached to this Memorandum, scenarios ## 1-5 all envision the use of the

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<sup>1</sup> Since I believe that the State's concerns can be resolved under the "totally enclosed treatment" exemption, I also am not examining under which scenarios the CAST System would be considered to be closed-loop recycling under 40 C.F.R. § 261.4(a)(8).

CAST System in a manner directly connected to a manufacturing process. In the Cellini Submission, the company has confirmed that it is intended that the CAST System be connected with the manufacturing operation entirely by closed pipes.

2. A totally enclosed treatment facility also must be "constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment." 40 C.F.R. § 260.10. As explained in EPA's Guidance entitled "Totally Enclosed Treatment Facility: Regulatory Clarification," RCRA Compendium # 9432.1983(01) ("Totally Enclosed Guidance"), several requirements must be met to pass this test. First, the treatment facility must be completely contained on all sides. In the Cellini Submission, the company has confirmed that this is how the CAST System is designed. Second, there must be no predictable potential for overflows and spills. For example, the system's tanks and pipes must be made of impermeable materials. The use of such impermeable materials and the many other protections against leaks and spills employed in the CAST System are documented in the attached Cellini Submission.

Finally, the system must be constructed to prevent air emissions. As confirmed in the Cellini Submission, the CAST System is designed to have no air emissions. It has no vented emissions and "CAST systems operate under nearly a full vacuum and hence do not produce any fugitive emissions." Cellini Submission, page 2.

Of course, there is always some possibility, however slight, of leaks and fugitive emissions, from any system. For example, when the CAST System is operated so as to create a product or waste (scenarios ## 2-5 on attached diagram), there could be fugitive emissions when the product or waste is removed from the system. These emissions, however, do not come directly from the treatment operation itself. In any event, while the totally enclosed treatment system exemption has been interpreted narrowly, some carefully designed systems can fall within its terms. The CAST System appears capable of meeting the test that there be "negligible potential" for emissions set forth in the EPA's "Totally Enclosed Guidance," page 7, as well as the more recently expressed tests that the system be designed not to have air emissions and be constructed and operated so as to prevent the release of hazardous constituents "not only on a routine basis but also during a process upset." 55 Fed. Reg. 25454, 25473 (June 21, 1990).

CAVEATS:

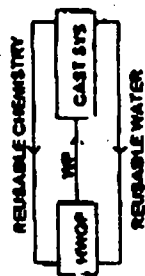
1. In this Memorandum, I am simply determining that the CAST System appears capable of meeting the tests for the totally enclosed treatment system exemption. Obviously, the manner in which this system is installed will determine whether or not the system qualifies as a totally enclosed treatment system in any particular case. For example, if the system was installed without being directly connected to an initial generator's manufacturing process, or was installed without being completely contained, the exemption would not apply. Whether the exemption will apply in any particular case also will depend on the how the system is operated. For example, the exemption could be lost if at a particular manufacturing plant, the system was not properly maintained or there were not effective protections against spills.

2. In this Memorandum, I am not addressing the State DEP's proposal to consider as totally enclosed, systems which have some air emissions but which meet a three part test of (i) having emission control devices which effectively prevent emissions, (ii) having in place a properly implemented leak detection program, and (iii) being in facility-wide compliance with all air requirements, including fugitive emission requirements. I also am not addressing the State's Environmental Results Program ("ERP") proposal to exempt from RCRA permitting certain facilities with up to 5 tons per year of air emissions. I need not reach these issues in this Memorandum, since the CAST System appears capable of meeting the tests for the totally enclosed treatment exemption as traditionally defined. The Region intends to work with the State on an ongoing basis on these other issues.

3. It should be emphasized that the totally enclosed treatment exemption is an exemption only from RCRA permitting for the treatment system. Other RCRA requirements will continue to apply. For example, if the CAST System generates a hazardous waste, RCRA generator requirements will apply, including manifesting if the waste is shipped off-site.

# POSSIBLE CAST SYSTEM INSTALLATIONS

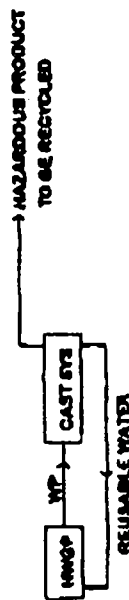
CAS SYS = CONTROLLED ATMOSPHERE SEPARATION TECHNOLOGY SYSTEM  
WP = WASTE PRODUCT  
HWGP = HAZARDOUS WASTE GENERATING PROCESS



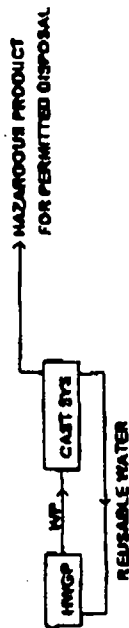
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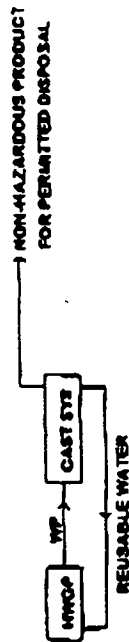
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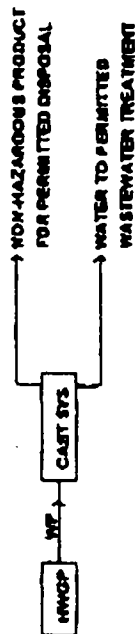
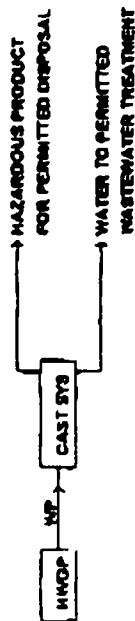
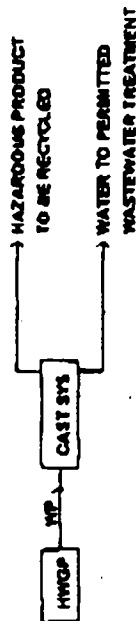
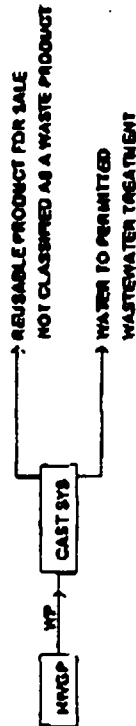
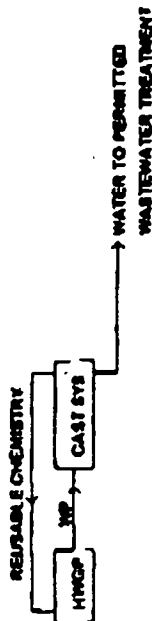


#4



#5

*no installations / fear of reopening permit*



- NOTES:
1. CAST SYSTEMS UTILIZE VACUUM ASSISTED FLASH DISTILLATION
  2. CAST SYSTEMS DO NOT DISCHARGE ANY PRODUCT TO THE AIR
  3. CAST SYSTEMS DO NOT EVAPORATE WATER INTO THE ATMOSPHERE
  4. CAST SYSTEMS CAN BE USED WITH OTHER TYPES OF TREATMENTS TO RECOVER PRODUCTS FOR REUSE OR RECYCLING
  5. CAST SYSTEMS CAN BE USED WITH OTHER TYPES OF TREATMENT TO RECOVER PRODUCTS NON-HAZARDOUS
  6. IN MOST CASES, CLIENTS HAVE PERMITTED WASTE TREATMENT IN ADDITION TO CAST SYSTEMS; *other wastes treated or other hazardous waste generated.*

*All have permits,*

## **FAX TRANSMISSION SHEET**

**CELLINI PURIFICATION SYSTEMS INC.  
290 MOODY STREET  
LUDLOW, MA. 01056-1244  
(413) 589-1601  
FAX (413) 589-7301  
E-mail: cellini@worldnet.att.net**

**To:** Ms. Sharon Leitch, US EPA  
**Date:** December 18, 1996  
**From:** Mr. Stephen Brown, CPS  
**Re:** Follow up on your FAX .  
**Page:** 1 of 3

Dear Sharon,

I hope that the following explanation is sufficient to answer the questions raised by the FAX you sent and our phone conversation.

CAST™ systems are completely hard piped. All piping is welded, solvent bonded or fusion bonded to prevent leakage. All connections are flanged or fitted with unions. All flange gaskets and union o-rings are constructed from TFE, Viton, Kel-Rez or similar corrosion resistant elastomers. All pipe, fittings, vessels, etc. are constructed of CPVC, FRP, 316 SS or similar corrosion resistant materials. All pumps, heat exchangers and instruments are constructed of 316 SS, titanium, Hastelloy or similar corrosion resistant materials. The actual materials utilized are a function of the specific process chemistry and are very carefully selected to provide years of safe, corrosion/erosion resistant service.

x

- Piping connecting a CAST™ system to a manufacturing process is always hard piped in an appropriate material. The pipe runs are always maintained within secondary containment. In most cases, this type of containment consists of a walled in sealed floor area. Double containment piping may be used if warranted.
- X
- CAST™ systems have no vents.
- X
- CAST™ systems can be connected directly to the existing manufacturing process tanks. In some instances, flow equalization tanks may be used. These tanks are always covered and constructed from an appropriate material. The solutions contained in these tanks are existing process solutions or water which will be reused in the manufacturing process.
- X
- CAST™ systems are primarily marketed as closed loop resource recovery systems which do not produce waste products. However, CAST™ systems are also used to recover water for reuse while reducing the overall volume of waste product generated by a manufacturing process. In this instance, the reduced quantity of waste is pumped through hard pipe to an approved container. The waste is taken off site by a licensed waste treatment/management source for recycle or approved disposal.
- X
- All tanks and vessels contained within a CAST™ system or connected to a CAST™ system are fitted with over flow piping, process level monitoring and HI/LOW shut down floats. Tank over flow piping is connected to appropriate storage tanks or licensed/approved waste treatment systems. All tanks and vessels contained within a CAST™ system or connected to a CAST™ system are fitted with appropriate isolation valves, drain valves, access ports and sight glasses.
- X
- CAST™ systems are fitted with redundant temperature, pressure, liquid level and power controls. These controls interface with the CAST™ system's electronic package. The operation of the system is fully automatic and completely fail-safe in nature. CAST™ systems are fitted with automatic isolation valves which isolate the individual sub-systems contained within the CAST™ system. Additionally, these valves are designed to prevent the accidental discharge of process solution in the event of a mechanical failure. CAST™ systems are also fitted with manually operated service valves which allow an operator to selectively isolate components for cleaning or maintenance without exposing the remaining system to atmosphere. All CAST™ system operations can be manually overridden in the event of a control system problem.
- CAST™ systems operate under nearly a full vacuum and hence do not produce any fugitive emissions.

CPS would be very pleased to have you and any of your colleagues visit our plant. We currently have a small system on the shop floor which can be made available for inspection. Please feel free to call me to arrange a visit or if you have any other questions or comments. We at CPS look forward to developing a close working relationship with both the US EPA and MA DEP, and would gladly cooperate with you in any way possible. I look forward to hearing from you. Thank you.

Sincerely,

*Stephen H Brown*

PS Visit our Web Site at <http://www.cellinicps.com>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

NOV 2 1988

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPO

Mr. Ronald T. Taritas  
Environmental Technology Corporation  
1124 Morse Avenue  
Schaumburg, IL 60193

Dear Mr. Taritas:

This is in response to your letter of September 19, 1988 in which you raise several questions about permit requirements as they relate to on-site treatment and wastewater treatment unit exemptions.

Under Subtitle C of the Resource Conservation and Recovery Act (RCRA), the scope of the RCRA permit requirements are detailed in 40 CFR Section 270.1(c). A RCRA permit is required for treatment, storage, or disposal of any hazardous waste. Treatment, storage, or disposal of hazardous wastes are defined as hazardous waste activities in 40 CFR Section 260.10.

Specific exclusions to the RCRA permit requirements are found in 40 CFR Section 270.1(c)(2). Generators that accumulate hazardous waste on-site in compliance with 40 CFR Section 262.34 are exempt from the requirement to obtain a RCRA permit, as specified in 40 CFR Section 270.1(c)(2)(i). The Agency currently interprets this regulatory exemption from permitting to cover storage and treatment activities in a generator's accumulation tanks or containers. The reasoning behind this policy can be found in Office of Solid Waste (OSW) memoranda dated June 17, 1986 and December 15, 1987 (copies enclosed), and preamble language in 51 FR 10168, March 24, 1986.

As I understand your letter, you are interested in applying the on-site treatment exemption for generators to the ribbon blender unit that stabilizes the listed F006 sludge, and possibly to the filter press, as well. It is important that you understand that this response is only dealing with a theoretical situation since the final determination as to whether and which RCRA regulations apply is facility-specific and, thus, must be made by the appropriate EPA Regional Office or authorized State. In the following discussion, I will deal with your Generators A and B separately.

Generator A

Your description of Generator A did not include enough detail to determine which RCRA regulations are applicable. One possibility is to assume that every unit at the facility meets the definition of a wastewater treatment unit per 40 CFR Section 260.10. If this is the case, the on-site treatment exemption for generators is not relevant since Part 264 standards (i.e., Subpart J--Tank Systems) and Part 270 permit requirements do not apply to owners and operators of wastewater treatment units, in accordance with 40 CFR Sections 264.1(g)(6) and 270.1(c)(2)(v), respectively.

For the above assumption to be correct, however, Generator A's wastewater treatment plant must be subject to regulation under either Section 402 or 307(b) of the Clean Water Act. In addition, each unit at the facility must either treat or store hazardous wastewater or hazardous wastewater treatment sludge (listed waste F006) and each unit on-site must meet the definition of a tank in 40 CFR Section 260.10. If material entering the filter press from the wastewater treatment plant is identified as a wastewater, rather than a wastewater treatment sludge (listed waste F006), the wastewater must exhibit a characteristic of a hazardous waste, such as EP toxicity for lead, cadmium, or chromium, to be identified as a hazardous wastewater. The Agency defines wastewaters as wastes that contain less than 1% total organic carbon and less than 1% total suspended solids (i.e., total filterable solids). See 53 FR 31145, August 17, 1988.

Another possibility is to assume that Generator A's facility is not subject to regulation under either Section 402 or 307(b) of the Clean Water Act. If this is the case, no units on-site are eligible for the wastewater treatment unit exemption. All units not meeting the definition of a wastewater treatment unit could be regulated as generator accumulation tanks or containers, depending on when the wastewater is identified as a hazardous waste. If the wastewater can be identified as a hazardous waste at its point of generation, the 90-day accumulation time period begins when the wastewater first enters the first unit (90-day accumulation tank or container) at the facility. Shipment of the stabilized (as specified in your letter) hazardous waste from the ribbon blender must take place within 90 days of the beginning point mentioned above.

A final possibility is to assume that all units on-site can be identified as wastewater treatment units except for either the filter press or the ribbon blender. This condition could only exist if either the filter press or the ribbon blender does not meet the definition of a tank (e.g., container) in 40 CFR 260.10. This scenario becomes much more complicated and

would best be answered by the appropriate EPA Regional Office or authorized State based on the specific facility design and operating parameters.

In any case, all tanks or containers at the facility must be in compliance with Subparts J or I, respectively, of Part 265 and Generator A must also comply with Subparts C and D of Part 265, as well as Section 265.16, as specified in 40 CFR Section 262.34. In other words, Generator A must be in compliance with all the time-frames and technical requirements outlined above and detailed in Section 262.34 to utilize the on-site treatment exemption for generators.


Generator B

Based on the information provided in your letter, the treatment of the listed waste K061 in the central accumulation tank would not require a RCRA permit provided the following conditions are met. First, from the moment Generator B places the K061 in the central accumulation tank, the K061 must be shipped off-site within 90 days. Second, the accumulation tank must be in compliance with the technical standards for hazardous waste tanks in Subpart J of Part 265. Third, Generator B must comply with Subpart C, Preparedness and Prevention and Subpart D, Emergency Procedures, of Part 265. Finally, all other regulatory requirements in 40 CFR Section 262.34 must be met by Generator B.

I want to reiterate that the above discussion addresses a theoretical situation. Facility-specific determinations as to the applicability and extent of regulation under RCRA must be made by the appropriate EPA Regional Office or authorized State. As you know, an authorized State may have more stringent regulations than those of the Federal government.

If you have further questions or need additional clarification, please contact Steve Cochran at (202) 475-8551.

Sincerely,

  
Sylvia K. Lowrance  
Director  
Office of Solid Waste

Enclosures

treatment standards are expressed as concentration levels), the Agency generally bases its capacity determination on the availability of this technology, thus helping to ensure that adequate treatment capacity is currently available to treat wastes in compliance with the applicable treatment standard. For a detailed discussion of capacity, refer to section III. H.

#### D. "Soft Hammer" Requirements

Section III. C. of today's preamble discusses the requirements applicable to those First Third wastes for which treatment standards or effective dates have not been promulgated. Basically, the generator must demonstrate and certify that there is no practically available treatment that reduces toxicity or mobility of the waste and that disposal of these wastes in a landfill or surface impoundment unit that meets the minimum technological requirements of RCRA section 3004(o) (double liner, leachate collection system, and ground water monitoring) is the only practical alternative. If treatment is practically available, the generator must certify that his waste is being treated by the best treatment (i.e., the treatment which provides the most environmental benefit) practically available, as indicated in his demonstration. The residuals from treatment of "soft hammer" wastes remain "soft hammer" wastes, and if disposed in a landfill or surface impoundment unit, must be placed in a unit meeting the minimum technological requirements of 3004(o) (including section 3004(o)(2) if an appropriate demonstration can be made).

#### E. Reinterpretation of RCRA Section 3004(h)(4)

As discussed in section III. D., the Agency is promulgating its reinterpretation of RCRA section 3004(h)(4) as presented in the April 8, 1988, proposal. This interpretation effects the disposal of restricted wastes which have been granted an extension to the effective date (either a national capacity variance or a case-by-case extension) in a landfill or surface impoundment. Under the interpretation promulgated today and effective on November 8, 1988 (during the interim period, the original interpretation applies), if such restricted wastes are disposed in a landfill or surface impoundment unit, the individual landfill or surface impoundment unit must meet the minimum technological requirements of RCRA section 3004(o).

#### F. "No Migration" Requirements

As discussed in section III. F., the Agency is today promulgating amendments to 40 CFR 268.6, the "no migration" petition process. As proposed on April 8, 1988, these amendments cover the demonstrations required in the petition and certain other requirements on the owner or operator of a waste management unit that is subject to a "no migration" variance.

#### G. Nonrulemaking Procedures for Site-Specific Variances From the Treatment Standard

The Agency is promulgating amendments to the existing 40 CFR 268.44 to modify the procedures for obtaining site-specific variances from the treatment standard. This action is taken in response to commenters' request for a more streamlined procedural mechanism for obtaining a variance from the treatment standard. EPA believes that, in certain cases, informal rulemaking are neither required nor warranted, and that a more streamlined procedure for obtaining a variance from the treatment standard is justified. This approach is discussed in more detail in section III. K. of today's preamble.

#### III. Detailed Discussion of Today's Final Rule

##### A. Determination of Treatability Groups and Development of Treatment Standards

###### 1. Waste Treatability Groups

For the First Third wastes, EPA used the individual listed waste codes as the starting point for developing waste treatability groups. In cases where EPA believed that wastes represented by different codes could be treated to similar concentrations using identical technologies, the Agency combined the codes into one treatability group. EPA based its initial treatability group decisions primarily on whether the waste codes were generated by the same or by similar industries from similar processes. EPA believes that such groupings can be made because of the high likelihood that the waste characteristics which affect treatment performance will be similar for these different waste codes. This conclusion is explained in more detail in the relevant background document for each particular waste code.

The treatment standards in today's rule generally contain concentrations presented constituent by constituent for "wastewaters" and for "nonwastewaters". The treatment standards apply to the wastes as

generated as well as all of the residual wastes generated in treating the original prohibited waste. See RCRA section 3004(m)(2) indicating that treatment standards apply both to wastes and treatment residuals therefrom. Thus, for example, all K101 and K102 wastes (including the solid residuals generated from treating K101 and K102) would have to meet the treatment standards for nonwastewaters and all wastewaters (including those generated from treating these wastes) would have to meet the treatment standards for wastewaters. For the purpose of defining the applicability of the treatment standard in this rule, the Agency defines wastewaters as wastes that contain less than 1% total organic carbon (TOC) and less than 1% total suspended solids (i.e., total filterable solids) except for those wastes identified as F001, F002, F003, F004, and/or F005 where the Agency indicated a different definition of the solvent wastewater treatability group (see 51 FR 40579 for the definition of a solvent-water mixture). Those wastes that do not meet this definition are considered to be nonwastewaters. A facility is not allowed to dilute or perform partial treatment on a waste in order to switch the applicability of a nonwastewater standard to a wastewater standard or vice versa.

However, EPA wishes to emphasize that where a waste that consists primarily of water (such as a leachate) is classified as a nonwastewater solely by its filterable solids content (i.e., total suspended solids (TSS) levels), the waste can be subjected to dewatering techniques to remove the filterable solids. Treatment standards for nonwastewaters are then applicable to the filtered solids. The filtrate is then subject to the treatment standards for the wastewaters, assuming that the filterable solids content has been reduced to less than one percent by weight. These standards are applicable if the wastes are to be placed in land disposal units, according to the appropriate provisions of today's rule.

###### 2. Identification of BDAT

A detailed discussion of the Agency's general methodology for establishing BDAT standards is provided in 51 FR 40572 (November 7, 1986). Section III. A. of today's preamble discusses the specific application of the methodology to the First Third wastes, and provides summary of some of the principal elements of the BDAT methodology.

Consistent with the general methodology, EPA first determines which technologies were

**View Record Detail**

Faxback 11173  
9441.1986(62)

AUG 19 1986

Mr. William R. Blackburn  
Counsel  
Travenol Laboratories Inc.  
Deerfield, Illinois 60015

Dear Mr. Blackburn:

This letter is in response to your letters dated July 19, and August 26, 1985, and your August 28, 1985, telephone conversation with Alfred W. Lindsey, then the Deputy Director of the Waste Management and Economics Division, and additional conversations with members of my staff. Your questions concerned the treatment of characteristic hazardous waste in pipelines that lead to a privately-owned wastewater treatment plant.

In a letter dated July 27, 1981, Mr. Lindsey responded to related inquiries made by Mr. Ronald E. Meissen of your company. This response included a copy of a seven-page regulatory clarification statement on the definition of "Totally Enclosed Treatment Facility." A copy of this statement is enclosed for reference.

In your letter dated July 19, 1985, you stated that "...if these characteristic hazardous wastes are poured to the sewer from a laboratory, such disposal would be permissible so long as the one-percent rule of 40 CFR 261.3(a)(2)(iv)(E) is met." This is an inaccurate interpretation of the rule. The rule does not refer to the permissibility of disposal but rather to whether the wastewater containing listed wastes is a hazardous waste or not. The provision does not apply where characteristic wastes are involved, even if the waste is from a laboratory. Mixtures containing only characteristic and nonhazardous wastes are hazardous only if the mixture exhibits the characteristic according to 261.3(b)(3). In sum, 40 CFR 261.3(a)(2)(iv)(E) is not relevant to the issue you raise. At this time, there is no on-going effort to create a de minimis mixture rule for characteristic hazardous waste.

From your description of the process, small parts are dipped into 50% alcohol/50% water mixture in small trays. This is a batch operation that occasionally requires the operators to carry the trays with spent dip solution to the drain. About

12 gallons per day of the waste are poured down the drain that

-2-

leads to an industrial wastewater treatment plant that handles 1.8 million gallons a day. You have stated that your biological treatment plant biodegrades the alcohol prior to discharge.

The following are specific responses to the questions in your letters:

Issues from the July 19, 1985 letter

(A) Does the dilution of noncorrosive, unlisted, characteristic hazardous waste to a nonhazardous condition constitute hazardous waste treatment if the dilution occurs in a sewer line leading to an industrial wastewater treatment plant after the waste is poured to the drain from a container?

Treatment is defined in 260.10 as "...designed to change the physical, chemical, or biological character or composition of any hazardous waste...to render such waste nonhazardous, or less hazardous; safer to transport, store, or dispose of...." Pouring the 50% water/50% alcohol ignitable waste down the drain renders the waste nonhazardous by the time it reaches the treatment plant. In this case, pipes are designed and used to convey, not treat, wastes to the biological treatment plant that degrades the alcohol. Thus, the dilution is incidental to the transport of the waste to the wastewater treatment plant where treatment takes place. Therefore, in this case the dilution is not treatment; and, if properly handled, this practice can be environmentally more acceptable than storing drums of the ignitable waste for off-side treatment or recycling.

(B) If the answer to (A) is "yes" (dilution is treatment), does the sewer line in which the waste is treated serve as (1) a "wastewater treatment unit;" (2) a "totally enclosed treatment facility;" or (3) any other type of exempt hazardous waste treatment facility?

Since dilution is not considered to be treatment when the characteristic waste is diluted while being conveyed to acceptable treatment, these questions are not applicable. Furthermore, once the waste stream is so diluted as to be rendered nonhazardous, treatment of the nonhazardous waste stream that occurs in the wastewater treatment plant is not subject to RCRA regulations.

(C) If the answer to (A) is "yes" (diluting characteristic waste

in a sewer line is treatment), and there is no exemption for the treatment in (B), what provisions of 40 CFR 264 and 265 govern the pipeline treatment?

The question is not applicable for the reasons explained above.

-3-

(D) If the waste is diluted in the sink prior to discharge down the drain, is the sink a "wastewater treatment unit?"

If hazardous waste is diluted in the sink, it is hazardous waste treatment, since the dilution is intentional, rather than merely incidental to conveyance to the treatment plant. Intentional dilution of waste prior to discharge to decrease its incompatibility, ignitability, reactivity, etc., in the pipelines constitutes treatment.

Since your 50% water/50% alcohol waste is not a wastewater by our guidance of a few percent contaminants (see the February 2, 1982, notice, 47 FR 4707), the sink is not a wastewater treatment unit.

Issues from the August 26, 1985, letter

(A) If corrosive hazardous waste from water deionization units travels through an open channel within the building to the sewer leading to an industrial wastewater treatment plant, does the neutralization of that waste in the sewer mean that the sewer is: (1) a totally enclosed treatment facility; (2) an elementary neutralization unit; or (3) a wastewater treatment unit? (4) Does the answer change if the channel is enclosed?

(1) No. An open sewer is not totally enclosed on all sides in accordance with Agency guidance.

The issue you raise is whether or not an open sewer in a building can be a totally enclosed treatment facility. Spills within the building can release hazardous constituents into the air or cause a release that leaves the confines of the building. Therefore, systems that can release hazardous constituents within buildings are not considered totally enclosed.

(2) Tanks are defined in 260.10 as: "a stationary device designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials...which provide structural support." According to the preamble of the proposed permit-by-rule in the November 17, 1980, Federal Register (45 FR

76078), the elementary neutralization unit "...is intended to include...tanks as well as devices such as flumes, gutters, throughs [sic] and pipes which are not commonly considered to be tanks, but which nevertheless meet the expansive definition of tank in 260.10." Although this preamble language was only included in the proposed permit-by-rule regulations, the Agency is applying this interpretation of tank to the exclusions in 265.1(c)(10), 264.1(c)(6), and 270.1(c)(2)(v) as well.

-4-

From the information you provided, the sewer qualifies for the elementary neutralization unit exclusion. The in-line neutralization system adds caustic to wastes that are only hazardous on the basis of corrosivity, and it meets the definition of an elementary neutralization unit (as defined in 260.10) for the reasons described above. In this case, neutralization is treatment rather than dilution incidental to the transport of waste as described in the July 19, 1985 letter.

Although the open channel is upstream of the neutralization, the channel is not subject to RCRA regulation as a tank, because it is part of the neutralization system. Elementary neutralization units may consist of a series of tanks, just as wastewater treatments may involve a series of connected tanks.

(3) The sewer is possibly a wastewater treatment unit if it meets the three criteria outlined in 40 CFR 260.10. First, the waste is a wastewater for RCRA purposes (i.e., contains at most a few percent material other than water, 47 FR 4707). You said that the corrosive waste is 95% water and 5% total dissolved solids, so the corrosive waste appears to meet the Federal criteria of a wastewater for the RCRA wastewater treatment exclusion. Second, the facility is subject to control under Section 402 or 307(b) of the Clean Water Act. And third, the units meet the definition of tank in 260.10. For the purposes of the exclusion, the pipes are tank like for the same reason that pipes can be part of an elementary neutralization unit. Since Mississippi has jurisdiction over your facility, you must ask the State if your facility is eligible for a wastewater treatment exclusion.

(4) Enclosing the channel would possibly change the answer to (1), i.e., whether or not it is a totally enclosed treatment facility. However, enclosing the channel may not be sufficient to create a totally enclosed treatment facility unless you comply with the enclosed guidance and any additional guidelines from the Mississippi Department of Natural Resources.

(B) If the corrosive hazardous waste in (A) is piped directly

from the deionization units to an enclosed tank where it is pretreated to bring the pH near, but not to, the non-hazardous range and then discharged via pipe to the sewer for final neutralization by dilution with wastewater, does the piping, tank, and sewer constitute a totally enclosed treatment facility?

Possibly. The Mississippi Department of Natural Resources would have to review the details of design and operation of the system to conclude that it does meet their criteria for totally enclosed treatment.

-5-

According to further discussions you had with my staff, the corrosive waste from the deionization units will for the short term be managed according to scenario "A" in your August 26, 1985, letter, which meets the EPA criteria for either elementary neutralization or wastewater treatment. (However, the facility is subject to State regulation.) For the purposes of determining the applicability of the small quantity generator exclusion of 261.5, our regulatory approach does not count waste until it is subject to regulation. The waste is not subject to regulation in the deionization unit in which it was generated according to 261.4(c) nor in the exempted neutralization process. Since there is no hazardous waste leaving the sewer, the corrosive waste from the deionization unit is not counted towards the waste exceeding 1,000 Kg a month. This policy is explicitly outlined in the 261.5(c) small quantity generator regulations promulgated March 24, 1986 (56 FR 10174).

The additional information you provided by telephone leaves serious questions about whether you can design a totally enclosed system and still meet your Food and Drug Administration requirements. However, scenario "B" still qualifies as an elementary neutralization unit and, as explained above, the corrosive waste does not count towards the small quantity generator limits, because the waste has not yet become subject to regulation. In other words, you do not have to be a totally enclosed treatment facility in order to qualify for small quantity generator status.

I appreciate your patience for the length of time it took EPA to address the policy issues raised by your request. Please address any questions on this response to Irene Borner of my staff at (202) 382-7917.

Sincerely,

Original Document signed

John P. Lehman  
Director  
) Waste Management and  
Economics Division

Enclosure

cc: James Scarbrough, Region IV  
Jack McMillan, Mississippi DNR

owners and operators of wastewater treatment units, should include requirements for a general waste analysis (40 CFR 264.13), and for contingency plan and emergency procedures (40 CFR Part 264, Subpart D). They further identify the waste analysis, the development of a waste analysis plan, and the personnel training requirements as the most critical requirements that should be incorporated into the Part 266-Standards. NSWMA also expresses concern about possible ambiguities in the regulation of hazardous sludges generated in wastewater treatment units and contends that the sludges should be subject to the full RCRA Subtitle C regulations up to and including final disposal.

Copies of NSWMA's written statements are available for inspection in the RCRA public docket room.

#### Definition of Wastewater Treatment Unit

EPA has received a number of inquiries regarding the interpretation of "wastewater" as used in the definition of wastewater treatment unit. The Agency intends that only units legitimately engaged in treating a relatively dilute aqueous based waste be covered by the definition of wastewater treatment unit and is concerned that the definition not be interpreted so broadly as to include virtually any treatment operation that treats any liquid waste.

The Agency considered trying to define wastewater in terms of a percentage of water but encountered great difficulty in developing a workable and defensible definition. As an interim measure, the Agency in a July 31, 1980 letter to EPA regional offices advised that wastewater be interpreted to refer to "wastes which are substantially water with contaminants amounting to a few percent at most." EPA found this interpretation brought further inquiries. EPA is now considering using the term "process waste water" in the definition of wastewater treatment unit to help clarify the meaning of wastewater. The term process wastewater, as defined in 40 CFR 122.3 and 401.11(q) means:

...water which, during manufacturing or processing, comes into direct contact with or from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

The Agency believes that the term "process wastewater" effectively limits the scope of the regulation and provides the body of experience that is needed in applying the term, a degree of certainty in the

meaning of wastewater treatment unit. For example, under this definition, process solutions such as solvents or acids which during manufacturing or processing come into direct contact with a product would not be considered a process wastewater, regardless of the percentage of water in the solvent or acid.

EPA invites comment on the use of the term "process wastewater" to help clarify the meaning of "wastewater treatment unit." The Agency also welcomes suggestions on how wastewater might otherwise be defined.

Dated: January 26, 1982.

Christopher J. Capper,  
Acting Assistant Administrator.

(FR Doc. 82-2636 Filed 2-1-82; 8:45 am)  
BILLING CODE 6560-30-41

#### GENERAL SERVICES ADMINISTRATION

##### 41 CFR Part 101-41

#### Refunds From Carriers for Unused Transportation Services

AGENCY: General Services Administration.  
ACTION: Proposed rule.

**SUMMARY:** The General Services Administration (GSA) proposes to amend the Federal Property Management Regulations to further revise and improve the procedures regarding refunds from carriers for exchanged tickets (traveler exchange of an original ticket for one of lesser value) and the redemption of unused tickets (tickets that have not been exchanged and on which no portion of travel has been performed). Compliance with these revised procedures by Government agencies and the carrier industry will expedite the recovery of outstanding refunds due the U.S. Government.

**DATE:** Comments must be received by March 4, 1982.

**ADDRESS:** Written comments should be sent to the General Services Administration (TACP), Washington, D.C. 20408.

**FOR FURTHER INFORMATION CONTACT:** John W. Sandfort, Chief, Reports and Procedures Branch, Office of Transportation Audits (202-275-0664).

**SUPPLEMENTARY INFORMATION:** The GSA has determined that this rule is not a major rule for the purposes of Executive Order 12291 of February 17, 1981, because it is not likely to result in an annual effect on the economy of \$100 million or more; a major increase in costs to consumers or others; or

significant adverse effects. The GSA has based all administrative decisions underlying this rule on adequate information concerning the need for, and consequences of, this rule; has determined that the potential benefits to society from this rule outweigh the potential costs and has maximized the net benefits; and has chosen the alternative approach involving the least net cost to society.

GSA proposes to amend Title 41, Part 101-41 of the Code of Federal Regulations (41 CFR Part 101-41) as follows:

#### PART 101-41—TRANSPORTATION DOCUMENTATION AND AUDIT

1. The table of contents for Part 101-41 (101-41.210—101-41.210-8) is amended by revising Subpart 101-41.210.

Subpart 101-41.2—Passenger Transportation Services Furnished for the Account of the United States

Sec. 101-41.210 Unused transportation refund procedures.

101-41.210-1 Ticket exchanges.  
101-41.210-1a Agency monitoring and processing of exchanged ticket refunds.  
101-41.210-2 SF 1170, Redemption of unused tickets (tickets that have not been exchanged and on which all or some portion of travel remains unperformed).

101-41.210-3 Agency processing of SF 1170.  
101-41.210-3a Carrier processing of SF 1170.  
101-41.210-4 Agency processing of SF 1170 refunds.

101-41.210-5 Report of carrier failure to make refund on SF 1170 demands.  
101-41.210-5a Carrier refund when SF 1170 has not been received.

101-41.210-5b Payment to carrier for subsequent use of ticket for transportation or second refund through the use of an SF 1170 after initial refund to GSA for unused expired ticket.

101-41.210-5c Agency recovery of carrier refunds sent direct to GSA.

101-41.210-6 Refund procedures covering unused transportation services billed by foreign-flag carriers.

Authority: 31 U.S.C. 244 and 40 U.S.C. 460(c).

Subpart 101-41.2—Passenger Transportation Services Furnished for the Account of the United States

Section 101-41.210 is revised to read as follows:

§ 101-41.210 Unused transportation refund procedures.

Agencies shall not revise carrier bills or require carriers to rebill items except as provided in § 101-41.210-6, to recover from carriers the value of unused or unfurnished transportation.

Wastewater Treatment Act

by these regulations are in place, and the visible emission requirements of COMAR 10.18.10.03B (1), (2), (4), and (5) were in effect as of October 10, 1981, the regulation's effective date.

3. EPA noted that the PFC delays enforceability of the mass emission standard for coke oven combustion stacks due to problems in the current test method. The agency requested that Maryland assure EPA in writing that alternate testing procedures developed for the particulate sampling method be submitted as a SIP revision no later than December 31, 1982.

Maryland pointed out that the PFC calls for an alternative test procedure for the particulate sampling method at the coke oven combustion stacks to be finalized by December 31, 1982. The State of Maryland anticipates no problem at the present time complying with this requirement and intends to submit the final test procedures to EPA as a SIP revision as soon as the procedure is finalized, which should be prior to December 31, 1982.

4. EPA's review revealed that the PFC allows the development of an alternate visible emission standard for the Basic Oxygen Furnaces (BOF) when reasonable controls are in place. It also states that the installation may occur in two stages. The agency has informed the State that an interim visible emission standard must be developed for the first stage.

Maryland stated that the PFC provides that the Department could require additional controls at the BOF Shop beyond those required in the Plan to be utilized by December 31, 1982. Should this occur, the State of Maryland commits to develop an interim visible emission standard for the BOF Shop and to submit it to EPA as a SIP revision no later than December 31, 1983.

Therefore, EPA proposes to approve the new iron and steel regulation COMAR 10.18.10, the new Technical Memorandum TM-AMA 81-04, the new method 13 to be added to TM-AMA 32-116, the amended COMAR 10.18.01 and COMAR 10.18.06, and the Amended Plan for Compliance (considering the above necessary changes) for the Bethlehem Steel Corporation's Sparrows Point, Maryland plant.

Based upon the above evaluations, the Administrator is proposing to approve the revision to the Maryland State Implementation Plan as discussed in this notice.

The public is invited to submit comments on whether these amendments should be approved as a revision to the Maryland State Implementation Plan.

The Administrator's decision to approve or disapprove the proposed revision will be based upon the comments received and on a determination as to whether they meet the requirements of Part D of Title I and Section 110(a)(2) of the Clean Air Act.

The Office of Management and Budget has exempted this rule from the requirements of section 3 of Executive Order 12291.

Pursuant to the provisions of 5 U.S.C. 605(b), the Administrator has certified that SIP approvals under Sections 110 and 172 of the Clean Air Act will not have a significant economic impact on a substantial number of small entities. See 48 FR 8709 (January 27, 1981). This action, if promulgated, constitutes a SIP approval under Sections 110 and 172 within the terms of the January 27, 1981 certification. This action only approves State actions. It imposes no new requirements.

Dated: December 9, 1981.

Peter N. Blisko,

Regional Administrator.

(FR Doc. 82-3828 Filed 2-1-82; 9:45 am)

BILLING CODE 5600-55-M

40 CFR Parts 122, 260, 264, 265, and 266

[SWH-FRL-2040-6]

**The Hazardous Waste Permit Program; Hazardous Waste Management System: General Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities; Standards for the Management of Specific Wastes and Specific Types of Facilities; Reopening of Comment Period on Proposed Regulations**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Reopening of comment period on proposed regulations.

**SUMMARY:** This notice reopens the comment period on a portion of EPA's November 17, 1980 proposed hazardous waste management and permitting regulations for wastewater treatment units (45 FR 76076). EPA is taking this action in order to allow the general public an opportunity to comment on issues raised by the National Solid Waste Management Association (NSWMA) in the course of settlement negotiations in *AMAX Inc. v. EPA* and to comment on a revision in the definition of "wastewater treatment unit."

**DATE:** EPA will accept comments on the issues discussed in this notice until March 4, 1982.

**ADDRESSES:** Comments should be addressed to Deneen M. Shrader, Docket Clerk, Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, 401 M Street S.W., Washington, D.C. 20460, telephone (202) 755-8173. Comments should identify the regulatory docket as: "Section 3004—Wastewater Treatment Units."

The public docket for this rulemaking is located in Room 2711, U.S. Environmental Protection Agency, 401 M Street S.W., Washington, D.C. 20460 and is available for viewing from 8:00 a.m. to 4:30 p.m., Monday through Friday.

**FOR FURTHER INFORMATION CONTACT:** Howard M. Cohen, Hazardous and Industrial Waste Division, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, Washington, D.C. 20460, telephone (202) 755-4650.

**SUPPLEMENTARY INFORMATION:** On November 17, 1980 (45 FR 76076) EPA proposed special regulations applicable to owners and operators of "wastewater treatment units." The proposed regulations were intended to reduce the regulatory burden on a class of facilities which pose less of a risk to human health and the environment than other types of hazardous waste management facilities. EPA incorporated many but not all of the Part 265 operating requirements into these proposed standards and provided for a simplified permitting process by granting qualified facilities a permit-by-rule.

On November 17, 1980 EPA also temporarily suspended the applicability of the hazardous waste management and consolidated permit regulations to wastewater treatment units pending finalization of the proposed special standards. Pursuant to Section 7006 of the Resource Conservation and Recovery Act (RCRA) several persons petitioned the United States Court of Appeals for the District of Columbia for review of this action, *AMAX, Inc. v. EPA*, Nos. 81-1171 and 81-1172.

In the course of settlement negotiations in *AMAX, Inc. v. EPA*, NSWMA raised several issues related to the proposed regulations and offered to submit to the Agency a supplemental letter outlining their position. Other petitioners present at the negotiations asked for an opportunity to comment on the issues raised by NSWMA. In light of these events EPA has decided to reopen the public comment period to allow for a full airing of these issues and has summarized NSWMA's comments in the following paragraph.

NSWMA contends that the proposed Part 266 standards, as they apply to



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT 27 1988

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPO

**MEMORANDUM**

**SUBJECT:** RCRA Regulation of Pesticide Rinse  
Treatment/Recycling System

**FROM:** Sylvia K. Lowrance, Director  
Office of Solid Waste (OS-300)

**TO:** David A. Wagoner, Director  
Waste Management Division  
EPA Region VII

This memorandum is in response to your September 15, 1988 memorandum requesting clarification of the RCRA regulation of certain tanks in a pesticide container washing operation.

As I understand the process, the rinsewater from the container washing is collected in a sump, is then pumped to a settling tank, and subsequently treated with activated carbon. The treated rinsewater is reused for container rinsing, but the pesticide residues are discarded.

Your interpretation that the used rinsewater is a "spent material" is correct; as a spent material going for treatment (or reclamation), it is a solid waste. If the used rinsewater contains a pesticide listed in 40 CFR 261.33 that was not derived from an "empty" container as defined in Section 261.7, the used rinsewater is a hazardous waste. If the pesticides do not meet a listing, the used rinsewater is a hazardous waste if it exhibits a characteristic (Section 261.20-261.24).

Although the system does have certain characteristics of a reclamation operation, it is more clearly defined as a wastewater treatment unit. As stated in your memo, this unit would be subject to RCRA permit requirements unless exempted under the wastewater treatment unit exemption at 40 CFR 264.1(g)(6) or 265.1(c)(10). In a September 2, 1988 Federal

Register notice, the Agency clarified that this wastewater treatment unit exemption is intended to cover only tank systems that are part of a wastewater treatment facility that (1) produces a treated wastewater effluent which is discharged into surface waters or into a POTW sewer system and, therefore, is subject to the NPDES or pretreatment requirements of the Clean Water Act, or (2) produces no treated wastewater effluent as a direct result of such requirements. This exemption is not intended to apply to wastewater treatment units that are not required to obtain an NPDES permit because they do not discharge treated effluent (see 53 FR 34080-81). As your memo explains, the treated rinsewater is completely recycled back into the operation and no discharge occurs. I cannot conclusively determine whether the unit would be eligible for an exemption as a wastewater treatment unit; that determination must be made by the authorized State or Regional office. In making this determination, the authorized State or Regional office must determine whether the facility is subject to regulation under Sections 307(b) or 402 of the Clean Water Act.

Regarding the regulatory status of the "reclaimed" rinsate, you cited the January 4, 1985 Federal Register preamble (50 FR 634) discussion of products from recycling operations losing their status as a waste. While the regulatory language allows for flexibility in determining whether a reclaimed waste may be considered a product (thus losing its status as a waste), the preamble discussion indicates that reclaimed wastewaters are not to be considered products. The reasons for this approach (i.e., that wastewaters are not ordinarily considered to be commercial products and are often discharged, and that the Agency did not intend to allow facilities to exempt their wastewater treatment surface impoundments from regulation by being classified as "recycling" facilities) are not necessarily applicable in this case. When reused, the reclaimed rinsate would lose its status as a solid waste as provided in 40 CFR 261.2(e)(1)(ii), provided it is truly reclaimed as an effective substitute for what is typically used to rinse the containers. Until it is reclaimed and fit for reuse, the rinsate would remain a solid waste, and, if applicable, a hazardous waste.

If you have any further questions or need any additional clarification, you should contact Mitch Kidwell at FTS 475-8551.

cc: Michael Feeley  
Chief, Waste Programs Branch  
EPA, Region IX

Karen Schwinn  
Chief, Waste Compliance Branch  
EPA, Region IX

Waste Management Division Directors  
Regions I-X

9483.1986(09)

November 28, 1986

MEMORANDUM

SUBJECT: Regulatory Interpretations for Tooele's Wastewater Treatment System

FROM: Marcia E. Williams, Director  
Office of Solid Waste

TO: Robert L. Duprey, Director  
Waste Management Division  
EPA Region VIII

Thank you for the information regarding implementation of the July 14, 1986 tank regulations at Tooele Army Depot. In general, your staff has demonstrated both a comprehensive and accurate understanding of the Subpart J requirements and their applicability to a wastewater (hazardous waste) treatment system. As you suggest, we will consider using the Region's interpretations as examples in our proposed question and answer brochure.

We do offer the following comments on the Region's technical interpretations and applicability determinations. Our comments elaborate on three of the four answers provided in Nathaniel Miullo's November 5 memo to Dr. Parker. We are delaying comments on question #2 because the issue of the applicability of RCRA to pipe systems associated with wastewater treatment units is under legal review by the Office of General Counsel (OGC). We will provide a response to question #2 as soon as OGC provides a determination. Our response to the other questions follow:

Question #1: Does a wastewater treatment system, qualifying as a wastewater treatment unit, need to meet the new tank rules for secondary containment, etc.?

The Region's determination is comprehensive and correct for the case where the wastewater treatment system does not qualify as a wastewater treatment unit. Where a system qualifies as a wastewater treatment unit, 40 CFR 264.1(g)(6) excludes such "unit" from the permitting process. Also, this exemption would normally be extended to storage of wastewater before entering the wastewater treatment unit. It is our understanding that Tooele may apply for classification as a wastewater treatment unit. The information we received does not appear to support such a

classification, but possibly they may have additional information we are not aware of.

Question #2: Does the definition of a closed loop exclusion apply to wastewater system Alternative A?

The Region's response is very good here. Additionally, to meet the closed loop exclusion the reclaimed material must be returned for reuse in the production process (not apparently the case here). By production process, the Agency means those activities that tie directly into the manufacturing operation or those activities that are primary to the operation at an establishment. It does not include ancillary or secondary activities that are carried out as part of the total activities. Given this, recycled water generally would not be considered a secondary material. (See 51 FR 25442.)

Question #3: Can a manhole in a wastewater distribution system be classified as a tank?

The Region's response suggests that manholes (sumps) if used as part of the secondary containment system, would be subject to the secondary containment requirements of 40 CFR 264.193(b). This is not true as 40 CFR 264.190(b) exempts tanks, including sumps, that serve as part of a secondary containment system from the requirements of §264.193. Secondary containment tanks/sumps must comply with all of the standards of Subpart J, except 264.193.

We appreciated the opportunity to review the Region's determination/interpretation relating to Tooele's wastewater treatment proposal. Should you have any questions concerning this review please feel free to call Chet Oszman in the Storage/Incinerator (PAT) at (FTS) 382-4499.

cc: Bruce Weddle  
Jack Lehman  
Susan Sawtelle  
Mark Greenwood  
Mat Miullo



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

MEMORANDUM

DATE: January 8, 1999

SUBJ: DEP Regulatory Interpretation Letter Issued to MWRA

FROM: Jeffry Fowley, Office of Regional Counsel

TO: Kevin McSweeney, Gary Gosbee and Ken Rota

CONFIDENTIAL: ATTORNEY-CLIENT; ATTORNEY WORK PRODUCT

Attached is a copy of the DEP Regulatory Interpretation Letter recently issued to the MWRA. For your background, also attached are copies of the EPA Regulatory Interpretation Letter earlier sent to the MWRA, and the MWRA's request for interpretations by EPA and DEP.

The DEP interpretations appear consistent with federal interpretations and requirements with the possible exception of one issue. In answer 5, the DEP states that it does not regulate sludge in a wastewater treatment unit as a hazardous waste "until such sludge is placed in a unit used solely for the purpose of accumulation or storage." (emphasis added).

As part of the Massachusetts base program, EPA approved a regulation which exempts wastewater treatment units from RCRA TSD requirements, but the regulation as approved by the EPA does not exempt them from RCRA generator requirements. If the DEP is now interpreting this regulation as exempting such units from even generator requirements, the "solely" language could be problematic.

I think we would agree with DEP that sludge being dewatered by a filter press is not yet covered by RCRA. But once sludge is being stored, the federal regulations subject it to RCRA generator requirements. If DEP is saying that such sludge is exempt unless it is solely being stored, the State interpretation could be less stringent than federally required. At a minimum, it opens a potential loophole that companies like Magnum Metal Finishing can try to take advantage of.

Based on the recent inspection by Ken's office, I understand that Magnum Metal Finishing has been storing hazardous sludge for years, but arguing that it is not subject to RCRA generator requirements because it occasionally drains supernatant from the sludge back into its wastewater treatment system. In our Regulatory Interpretation Letter, we made clear that we consider such sludge to be subject to RCRA. If the DEP disagrees, we have a problem.



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I propose that we proceed as follows: (1) we should raise this issue in connection with the IBR project. As part of the update of the DEP's regulations, DEP should clarify that sludge being stored is hazardous waste even if supernatant is drained from the sludge (the term "solely" should be eliminated from the DEP's definition as part of this clarification process); (2) Ken - I recommend that your office continue to take the position that the sludge storage at Magnum Metal Finishing is a RCRA program violation, whether or not supernatant has been drained periodically from the sludge. But before issuing a complaint, it may be wise to consult with the State. Since the State's interpretation goes beyond what its federally approved regulations actually say, I do not think we need to defer to the State's interpretation. But it would be good to try to forge a united front.

Perhaps all the State means by its letter is that sludge still being actively dewatered is not hazardous waste. If so, we do not have a problem. But if the DEP is applying the "solely" language to exempt companies like Magnum Metal Finishing from all hazardous waste requirements, then we have a problem and need to seek to correct it as part of the Massachusetts RCRA program update.



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ARGEO PAUL CELLUCCI  
Governor

TRUDY CONE  
Secretary

DAVID B. STRUHS  
Commissioner

December 31, 1998

Kevin McManus  
Massachusetts Water Resources Authority  
Charlestown Navy Yard  
100 First Avenue  
Boston, MA 02129

Dear Mr. McManus: *Kevin*

The following is in response to your August 31, 1998 letter in which you requested from the Massachusetts Department of Environmental Protection (DEP) clarification of regulatory requirements that apply to certain practices MWRA has observed at various metal plating facilities in its district.

1. Delivery of hazardous wastewater (usually spent plating baths) to treatment systems by means other than direct piping.

You stated that the most common methods observed are hand-carrying wastewater in buckets or collecting wastewater in containers and transferring it on wheeled dollies to an on-site wastewater treatment unit (WWTU). You noted that in most cases these metal-bearing wastes and acids are likely to be either listed (F006 or F007) or characteristic hazardous wastes. You requested clarification as to which requirements apply to such wastes.

Assuming that the wastewaters described in your letter are hazardous wastes, the Massachusetts Hazardous Waste Regulations, 310 CMR 30.000, apply from the time the wastewaters are generated until they are added to the on-site wastewater treatment unit. As such, a generator of hazardous wastewaters must comply with all the applicable generator requirements of 310 CMR 30.300 prior to introducing the wastewaters to the WWTU. These include determining whether the waste is a hazardous waste, counting such wastes in deciding whether the generator is a large, small or very small quantity generator, obtaining an EPA Identification number (VSQGs need only obtain a DEP-issued generator identification number), as well as complying with all applicable hazardous waste accumulation, labeling and container management standards (see 310 CMR 30.340-30.353).

Hazardous wastewaters may be added to an on-site WWTU within the MWRA district by means other than direct piping provided that the above-referenced treatment takes place in a WWTU in accordance with the following conditions:

- a) the treatment takes place in a tank which meets the definition of a WWTU in 310 CMR 30.010, and which is permitted pursuant to M.G.L. c. 21 s. 43 (MWRA permitted facilities are considered permitted pursuant to M.G.L. c. 21 s. 43 (see 314 CMR 7.16)); and
- b) the hazardous waste introduced into the WWTU has been described in an MWRA Industrial Wastewater Discharge Permit application; and
- c) the WWTUs ability to treat the hazardous wastes is adequately regulated by an MWRA approval resulting from the above permit application; and
- d) the WWTU system's effluent is properly permitted or otherwise authorized by MWRA.

Such a WWTU, however, must also be managed in compliance with the Special Requirements for Wastewater Treatment Units at 310 CMR 30.605. Provided that the WWTU is managed in compliance with 30.605, it is not subject to the management and permitting requirements for hazardous waste facilities found at 30.500 through 30.999, for the treatment, storage and disposal of hazardous waste. However, when a hazardous waste sludge is removed from the WWTU, it is subject to regulation as a hazardous waste under 30.000, and not the special requirements of 30.605.

Therefore, MWRA is correct in its understanding that 310 CMR 30.605 does apply to wastewater treatment units that receive hazardous waste and recycled wastes (as described in 30.206(3)), for which the unit has a valid permit to treat, and that this includes units that discharge subject to MWRA permits.

2. What is the scope and import of the exclusion at 310 CMR 30.605(1)(b) which states that 310 CMR 30.605 does not apply to a WWTU that conducts treatment which is an integral part of the manufacturing process; specifically, what is the consequence of excluding these systems from 310 CMR 30.605?

WWTUs that conduct treatment which meets the definition of treatment which is an integral part of the manufacturing process are not subject to the requirements of 310 CMR 30.000. As you noted, the definition of treatment which is an integral part of the manufacturing process, as defined in 310 CMR 30.010, specifies that the treatment method must be directly connected via pipes or the equivalent from the production process

The term "connected via pipes or the equivalent" is interpreted by DEP to mean either a hard-piped connection or some other fixed pipe connection that cannot be readily disconnected. Treatment which is an integral part of the manufacturing process does not refer to, for example, a freestanding, mobile treatment unit that can be wheeled up and easily connected using a pipe that screws into the processing unit. To this end, the DEP does not consider hand-carrying or open troughs to be the equivalent of pipes, and are thus not excluded from 310 CMR 30.605.

Finally, please note that the practice of hand-carrying open buckets of hazardous waste to a WWTU is not allowable under the Massachusetts Hazardous Regulations, since 310 CMR 30.685 requires that containers being used to accumulate hazardous waste must be kept closed at all times except for when waste is either being added or removed.

### 3. Clarification of the term "Off-Site".

In your letter, you note that 310 CMR 30.605(1) specifies that the section does not apply to WWTUs that receive hazardous waste generated off the site where the unit is located. You specifically ask what is meant by off the site?

Please refer to the definition of Site at 310 CMR 30.010. The scenario described in your letter whereby hazardous wastewaters are moved from one building to another (without being transported along a public road) would not be considered off the site since the facility appears to meet the above-referenced definition of a single Site.

### 4. Clarification as to what is required to comply with 310 CMR 30.605(2)(b), 30.605(4) and 30.513.

310 CMR 30.605(2)(b) states that the owner or operator of each WWTU shall comply with 310 CMR 30.513, which requires an owner/operator of a WWTU to obtain a detailed physical and chemical analysis of a representative sample of the waste. 30.605(4) no longer requires that a waste analysis plan be submitted to the DEP and the POTW since that reporting requirement effectively expired in 1984. Therefore, no waste analysis plan needs to be submitted to the MWRA.

### 5. When does sludge accumulation in a tank become long-term storage of a hazardous waste (assuming the sludge is F006 listed)?

DEP does not regulate sludge in a WWTU as a hazardous waste accumulation until such sludge is placed in a unit used solely for the purpose of accumulation or storage. Therefore, as long as the sludge is in a WWTU that is conducting treatment (and not just accumulation), the DEP considers such sludge to be subject to the requirements of 310 CMR 30.605, regardless of whether the sludge will be reintroduced back into the wastewater treatment unit. In addition, if hazardous wastewater treatment sludge is removed from one unit in a series of units within a wastewater treatment system and placed in another unit for accumulation and additional permitted treatment (e.g. dewatering), the DEP still does not consider that to be hazardous waste accumulation or storage.

### 6. How Would DEP Like to Be Informed of Apparent Violations?

In general MWRA may refer apparent violations of DEP hazardous waste regulations to the appropriate DEP Regional Office to the attention of the Bureau of Waste Prevention, Compliance and Enforcement Section Chief. Since the majority of the MWRA service area falls within DEP's Northeast Region, violation referrals may be directed to Edward Pawlowski, Compliance and Enforcement Chief at (978) 661-7600.

As you know, DEP is in the process of reviewing all of the Massachusetts regulations and programs which affect facilities discharging or proposing to discharge industrial wastewater in preparation for implementation of the Environmental Results Program (ERP) Industrial Wastewater Certification. Prior to ERP implementation, DEP expects to propose and promulgate amendments to the current industrial wastewater regulations. Because DEP is considering revisions to portions of the 310 CMR 30.605 regulations and others that may impact such issues as inspection, enforcement and applicable requirements, the agency is deferring resolution of these issues until the regulatory issues have been resolved.

If you have any additional questions, please contact me at (617) 556-1120 or James Paterson of my staff at (617) 556-1096.

Sincerely.



Steven A. DeGabriele  
Director, Bureau of Waste Prevention  
Business Compliance Division

cc: Ralph Child  
William Sirull  
John Reinhardt  
Edward Pawloski, NERO  
Robert Bois, CERO  
Dikran Kaligian  
Helen Waldorf  
James Doucett  
James Miller  
Kevin McSweeney  
Jeffrey Fowley  
Sarah Baron



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

JOHN F. KENNEDY FEDERAL BUILDING  
BOSTON, MASSACHUSETTS 02203-0001

October 22, 1998

Kevin McManus, Director  
Toxic Reduction and Control Department  
Massachusetts Water Resources Authority  
Charlestown Navy Yard  
100 First Avenue  
Boston, MA 02129

Re: Hazardous Waste at Metal Plating Facilities

Dear Mr. McManus:

This is in response to your request for a regulatory interpretation dated August 31, 1998. In answering your questions, I will first explain how we interpret our federal RCRA regulations. I will then address how federal and state requirements interact.

Regulation of Wastewaters Stored or Transported On-Site

You first note that the MWRA has found several metal plating facilities that deliver waste from industrial processes to their wastewater treatment systems by means other than direct piping. The most common methods are hand-carrying waste in buckets, or collecting it in containers and transferring it on wheeled dollies. You state that the MWRA believes that these metal-bearing wastes and acids are likely to be either listed (e.g., F007-F009) or characteristic hazardous wastes. You ask what hazardous waste requirements apply to this situation.

RCRA generator requirements apply when wastewaters are stored, accumulated or transported on-site (other than by hard-piping) prior to discharge. As explained below, none of the EPA exemptions from hazardous waste generator requirements apply to this situation:

1. 40 CFR §§ 264.1(g)(6), 265.1(c)(10) and 270.1(c)(2)(v) exempt owners and operators of wastewater treatment units from the hazardous waste treatment, storage and disposal facility requirements set out in 40 CFR parts 264, 265 and 270

respectively.<sup>1</sup> However, these provisions do not exempt owners and operators of wastewater treatment facilities from compliance with RCRA generator requirements.

2. 40 CFR § 261.4(a)(2) exempts industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act from hazardous waste requirements. However, as stated in the EPA "Comment" following this regulation, "this exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge...."

3. 40 CFR § 261.4(a)(1)(ii) similarly exempts mixtures of industrial wastes and domestic sewage from hazardous waste requirements. However, this exemption applies only when the industrial wastes mix with domestic sewage upon or after being discharged, and does not exempt industrial wastewaters from hazardous waste requirements prior to discharge.

4. 40 CFR § 261.5(c)(2) provides that wastewaters need not be counted by generators as hazardous wastes when they are "managed immediately upon generation only in ... wastewater treatment units." This provision exempts wastewaters from all hazardous waste requirements (including generator requirements) when it applies. But it only applies when wastewaters are managed immediately upon generation and only in wastewater treatment units. The EPA interprets this as meaning that the exclusion applies only when the wastewaters are transported from the point of generation (e.g., industrial process tank) to the wastewater treatment system and discharge point only through hard-piping. Thus this exemption does not apply when hazardous wastes are stored or transported in containers or other such devices.

5. 40 CFR § 261.5(c)(2) also provides that wastes need not be counted by generators as hazardous wastes when they are managed immediately upon generation only in totally enclosed treatment facilities. But for the same reasons discussed in item 4 above, this exemption does not apply when hazardous wastes are stored or transported other than through hard-pipes.

Since none of the exemptions apply, any regulated entity storing, accumulating or transporting wastewaters on-site other than through hard piping must comply with all applicable RCRA generator requirements. These include, first, that the regulated entity must make determinations regarding whether the wastewaters are hazardous wastes in accordance with 40 CFR § 262.11.

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<sup>1</sup> This exemption is subject to the caveats regarding dilution of certain ignitable and reactive wastes set out in 40 CFR §§ 264.1(g)(6) and 265.1(c)(10).

Second, any wastewaters which are hazardous must be counted in determining whether the entity is a large quantity generator, small quantity generator or conditionally exempt small quantity generator under federal law. Depending upon its overall status, the entity must then comply either with the large quantity generator requirements set out and referenced in 40 CFR § 262.34(a) and elsewhere in 40 CFR part 262, or the small quantity generator requirements set out and referenced in 40 CFR § 262.34(d) and elsewhere in 40 CFR part 262, or the conditionally exempt small quantity generator requirements set out and referenced in 40 CFR § 261.5.

For large and small quantity generators, these requirements include obtaining an EPA identification number in accordance with 40 CFR § 262.12. Also, any containers in which wastewaters are stored, accumulated or transported must be properly handled. That is, when hazardous wastewater is added to a container from a process tank, the regulated entity must either store the wastewater in compliance with the satellite storage requirements set out in 40 CFR § 262.34(c) or must promptly transport the wastewater to the point of discharge. In either case, labeling requirements (e.g., labeling the container as "hazardous waste"), must be followed. If there is storage at other than the point of initial generation (e.g., at the point of discharge), the full applicable requirements for non-satellite storage (including the 90 or 180 day time limits) must be followed. Note that the accumulation, storage or transportation on-site of hazardous wastewaters may also trigger requirements for such things as RCRA training and the development of a Contingency Plan.

We also specifically note that the practice of transporting hazardous wastewaters in open buckets is not allowed by the federal regulations. Pursuant to 40 CFR § 265.173(a), any container holding hazardous waste "must always be closed during storage, except when it is necessary to add or remove waste." This provision is applicable to both large and small quantity generator storage, including satellite storage.

Finally, additional requirements including the use of the Manifest apply when hazardous waste is transported off-site. Off-site means any situation which is not within the definition of "On-site" in 40 CFR § 260.10. Provided that an entity stays within this definition, it may transport hazardous waste between buildings without needing to use a Manifest. But it must of course comply with proper handling requirements, including labeling and the use of a closed container, for the transportation of hazardous waste on-site.

Metal finishers that wish to avoid hazardous waste requirements may be able to do so by taking pollution prevention measures which render their wastes non-hazardous. Also, hazardous waste requirements do not apply to wastewaters which are hard-piped

Thus hazardous sludges generated by a wastewater treatment unit and not destined for reintroduction to the treatment unit, must be handled as hazardous wastes. We further emphasize that any exemption from hazardous waste requirements based on reintroduction of sludge into wastewater treatment systems is narrow. Indeed, the federal regulations do not contain an exemption for sludges destined to be reintroduced to wastewater treatment systems, as such. If sludge truly is reintroduced and used as part of an ongoing process of treating wastewater, the sludge could be exempt from federal hazardous waste regulation under 40 CFR § 261.5(c)(2). But we are aware of no situation where this would occur within the metal finishing industry. No federal exemption from generator requirements applies simply because sludge is in a tank which is part of the wastewater treatment system. Also, sources storing sludge and reintroducing only supernatant to their wastewater treatment system do not qualify for any federal exemption for the sludge.

#### Need for Compliance With Federal and State Requirements

Currently in Massachusetts, metal finishers and other sources must comply with both federal RCRA regulations and State requirements. This is because while Massachusetts has been authorized to carry out the federal base RCRA program, it has not yet been federally authorized to carry out various updated federal requirements. In particular, the State has not yet been authorized to administer the "TC Rule" covering many of the hazardous wastes. Thus the federal regulations described above apply directly in Massachusetts to all "TC" wastes. The federal regulations also set the minimum standards below which State regulations may not fall.

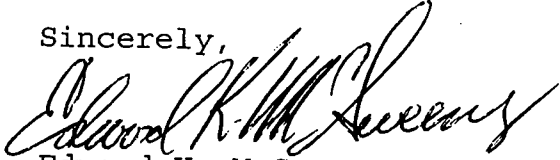
The State, however, has the lead responsibility for the portions of the RCRA program for which it has been authorized, including most regulation of non-"TC" wastes. State regulations must be complied with as a matter of State law, and many of the State regulations are federally authorized and enforceable.

Thus metal finishers should treat the federal requirements described above as the starting minimum point for compliance. In addition, metal finishers must comply with any more stringent State requirements. As you have requested, the interpretation of the State regulations will come separately from the DEP.

If the MWRA discovers violations of RCRA requirements, notification to EPA should be made to Ken Rota, Chief of the RCRA Technical Section in our Office of Environmental Stewardship. His telephone number is 617-565-3321.

Thank you for your inquiries and for your offer of assistance in bringing about compliance. Please feel free to write again should you have any further questions, or contact our RCRA attorney Jeffry Fowley directly at 617-565-3449.

Sincerely,

A handwritten signature in cursive script, appearing to read "Edward K. McSweeney".

Edward K. McSweeney  
Associate Director for Waste Policy

cc: Steve DeGabriele, MA DEP  
Ken Rota



**MASSACHUSETTS WATER RESOURCES AUTHORITY**

Charlestown Navy Yard  
100 First Avenue  
Boston, Massachusetts 02129

*Gary Costello (CHU)*  
*I assume Jeff*  
*is working on this*  
*Kevin*

August 31, 1998

Mr. Kevin McSweeney  
Associate Director, Waste Policy  
U.S.E.P.A.  
JFK Federal Building  
1 Congress St.  
Boston, MA 02203

Ralph Child, General Counsel  
Massachusetts Department of Environmental Protection  
1 Winter St.  
Boston, MA 02108

OFFICE OF ENVIRONMENTAL PROTECTION  
IMMEDIATE OFFICE

Re: Hazardous waste at metal plating facilities

Dear Messrs. McSweeney and Child:

I am writing as a follow-up to discussions between MWRA and Mark Mahoney of EPA concerning hazardous waste management at metal plating facilities. We have corresponded and met with Mr. Mahoney concerning EPA's Common Sense Initiative for Metal Platers, and in the course of those discussions have raised MWRA's concerns with the handling of concentrated plating baths, wastewater treatment sludge, and other hazardous wastes at metal plating facilities. As I wrote to Mr. Mahoney on June 19, 1998, MWRA is concerned that if hazardous waste is improperly handled, it may be released to the sewer at some facilities. MWRA therefore requests clarification from EPA and DEP of their requirements concerning certain practices that we have observed at various metal plating facilities in MWRA's District, as discussed below, and your assistance in communicating these requirements to the metal platers and assuring compliance.

In particular, MWRA is concerned with manual transfer of process wastes to wastewater treatment systems, and long term storage of sludge removed from wastewater treatment systems. MWRA has endeavored to assure that such practices do not threaten to cause violations of MWRA's discharge regulations, but we would also like to be sure that we can identify potential violations of DEP and EPA requirements.

1. Manual delivery of wastewater (usually concentrated spent plating baths) to treatment systems.

MWRA has found that many facilities deliver waste from industrial processes to their wastewater treatment systems by means other than direct piping. The most common methods are hand-carrying waste in buckets, or collecting it in containers and transferring it on wheeled dollies. At least one facility transports waste in this manner between buildings and across a parking lot. In most cases, the wastes involved are spent plating baths or acids. MWRA believes that these metal-bearing wastes and acids are likely to be hazardous wastes, either listed (e.g., F007 - F009) or characteristic. We need clarification as to which requirements do apply to these wastes, so that we can be sure that our permit requirements are consistent, and so that we can identify instances of noncompliance and inform your agencies.

Our understanding is that EPA and DEP do not prohibit manual delivery to wastewater treatment systems, but some RCRA requirements may apply to these wastes. EPA's regulations, at 40 C.F.R. §§ 264.1(g)(5) & (6), and 265.1(c)(9) & (10), exempt "totally enclosed treatment facilities," and "wastewater treatment units" (defined in 40 C.F.R. § 260.10) from Parts 264 and 265 (governing treatment, storage and disposal facilities), but other requirements, particularly the generator requirements in Part 262, may apply to metal platers' manually transported wastes. For example, are wastes destined for wastewater treatment units subject to the accumulation provisions of 40 CFR § 262.34, so that they are to be considered in determining the generator's eligibility for small quantity status under § 262.34? MWRA would like to identify specific applicable EPA provisions that metal platers should be aware of.

DEP, at 310 CMR §§ 30.501(2)(b) & (d) and 30.801(4), also exempts "industrial wastewater treatment units," from the management and permitting standards for hazardous waste facilities, but 310 CMR § 30.605 imposes some requirements on "wastewater treatment units for the treatment of hazardous waste at the site of generation of the waste." 310 CMR § 30.010 defines an "industrial wastewater treatment unit" as a unit which serves a discharge subject to regulation under § 307(b) (pretreatment) or § 402 (NPDES) of the Clean Water Act, is used for treatment or storage prior to treatment, and is a "tank." MWRA would like to confirm its understanding that § 30.605 applies to all wastewater treatment units that receive hazardous waste, as well as recycled waste that would be hazardous if it were not recycled (310 CMR § 30.206(3), including units that discharge subject to MWRA permits.<sup>1</sup> In addition, the terms of § 30.605 present several questions.

First, we are not sure of the scope and import of the exclusion in § 30.605(1) of "treatment which is an integral part of the manufacturing process," as defined in 310 CMR §

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<sup>1</sup> Section 30.501(2)(d) states that "Hazardous waste activities at such facilities are regulated at 314 CMR 8.00." Section 8.05 requires that facilities comply with 310 CMR § 30.605, and to the operations manual requirement of 314 CMR § 12.04(1). MWRA cannot determine whether § 8.05 applies to dischargers to the sewer.

I look forward to working with you to clarify these issues. Please feel free to contact Charles Bering on my staff, at (617) 241-2309, to discuss this further.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Kevin McManus", with a long horizontal flourish extending to the right.

Kevin McManus, Director  
Toxic Reduction and Control Dept.

cc: Mark Mahoney, EPA  
Jeffrey Fowley, EPA  
Joe Canzano, EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

105

October 2, 2000

Mr. Jay Chung, Director in Sales  
OMEGA Cleaning Equipment, Inc.  
215-05 Northern Blvd.,  
Bayside, NY 11361

re: Hoyt Hydrocarbon dry cleaning machine

Dear Mr. Chung:

The letter is in response to your correspondence dated August 7, 2000 to Mr. Steve Rapp, Chief of the Air Permits program of EPA New England regarding hydrocarbon dry cleaning equipment. Please note that this letter was redirected to the Hazardous Waste program for review and response. In your letter you requested EPA's opinion on the Hoyt Hydrocarbon dry cleaning machine which uses the ExxonMobil chemical DF-2000. Included with your request were several letters from state environmental agencies which addressed regulations for dry cleaning wastes resulting from the use of the DF-2000 solvent in dry cleaning operations, also included was an MSDS sheet for DF-2000. In addition, you also requested guidance regarding hydrocarbon waste disposal requirements and the applicability of the Massachusetts hazardous waste regulations to certain wastes from the dry cleaning process. Please note that the State of Massachusetts, in accordance with Section 3006 of the Resource Conservation and Recovery Act (RCRA), is authorized to administer and enforce the base RCRA program in lieu of the federal program. In particular, Massachusetts has regulatory authority regarding solid and hazardous waste determinations and waste disposal requirements. Therefore, we suggest that you further consult with the Massachusetts Department of Environmental Protection (MADEP) regarding applicable state regulations for waste disposal and any other applicable hazardous waste regulations.

While we are not in a position to provide you with an opinion on the Hoyt machine we can provide you with some guidance regarding Federal environmental regulations for hazardous waste and potentially applicable regulations for air pollutants with respect to dry cleaning operations. The Federal hazardous waste regulations are found at 40 CFR Part 260 through 279. 40 CFR Part 262 lists the requirements for hazardous waste generators. The generator of a waste is responsible for determining whether the waste is hazardous (see 40 CFR 262.11). There are two ways that a waste is determined to be hazardous; either the waste exhibits a characteristic of a hazardous waste as defined in 40 CFR 261.21, 261.22, 261.23, and 261.24, or it is identified and

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Mr. Jay Chung  
October 2, 2000  
Page 2

specifically listed as a hazardous waste in 40 CFR 261.31, 261.32, and 261.33. Please note that the levels of chemicals listed on an MSDS are not appropriate values to use when making a hazardous waste determination. An MSDS only reports the presence of a hazardous constituent at a concentration level of 1% (the equivalent of 10,000 ppm) or greater. This level is well above any maximum concentration level that could cause a waste to be hazardous due to a characteristic (see 40 CFR § 261.24) using the Toxicity Characteristic Leaching Procedure (TCLP). Therefore, it is unlikely that a generator could rely on knowledge to determine whether or not this product is a hazardous waste after use. Since it is the generator's responsibility to determine whether or not a waste they produce is hazardous, we recommend that testing be done by the generator, in this case the dry cleaning operator, to determine the presence of constituents which may cause the waste to be hazardous.

Under the Air Program EPA promulgated National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for perchloroethylene drycleaners on September 22, 1993. EPA has also listed drycleaning (petroleum solvent) for regulation on its source category list and may develop regulations for major sources of hazardous air pollutants (HAPs). Enclosed please find a fact sheet that summarizes the regulations for hydrocarbon drycleaners developed by EPA. In addition, you can find other useful information about hydrocarbon drycleaners on EPA's website at <http://www.epa.gov/dfe/garment/garment.html>. We also recommend that you consult with the MADEP regarding any applicable state air permit regulations.

If you have any questions regarding this response, please do not hesitate to contact Sharon Leitch, in the Hazardous Waste Program Unit, at (617)918-1647.

Sincerely,

  
Edward K. McSweeney, Associate Director  
Waste Policy

cc: G. Gosbee, Chief, Hazardous Waste Program Unit, EPA  
K. Rota, Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
S. Rapp, Chief, Air Permits Program, EPA  
D. Koopman, Air Technical Unit, EPA  
J. Miller, Chief, Waste Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC

enclosure



# Design for the Environment

## Garment and Textile Care Program Fact Sheet



### What is Design for the Environment?

EPA's Design for the Environment (DfE) Program is a voluntary initiative that forges partnerships with various stakeholder groups in an effort to:

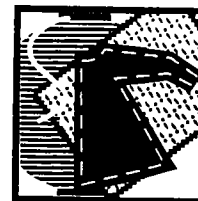
- Incorporate environmental concerns into the traditional decision-making parameters of the business world: 'cost' and 'performance.'
- Build incentives for behavior change to encourage continuous environmental improvement.

To accomplish these goals, the program utilizes EPA expertise and leadership to compare the relative environmental and human health risks, performance, and cost tradeoffs of traditional and newer technologies. DfE disseminates information on its work to all interested parties and also assists businesses to implement the new technologies identified through the program.

The program currently has cooperative partnerships with:

- Industry
- Academia
- Environmental and Public Interest Groups
- Labor Unions
- Research Organizations
- Government Purchasing Agencies
- Professional Institutions and Trade Associations

### List of Major Federal Regulations and Standards Affecting Petroleum Cleaners



In general, on a nationwide basis, petroleum drycleaners provide their services primarily to large industrial, commercial, and institutional customers. Consequently, petroleum drycleaning establishments tend to be larger operations relative to the drycleaners who cater to a residential clientele, i.e., the neighborhood cleaners. However, many smaller cleaners are now converting from perchloroethylene to petroleum processes. Because petroleum drycleaners presently form a distinct sector (due to size, customer-type, and solvent-type) within the garment and textile care industry, these operations are subject to special Federal and State regulatory requirements.

This Fact Sheet identifies some of the major Federal environmental, health, and safety requirements that apply to petroleum drycleaning operations. The U.S. Environmental Protection Agency (EPA) administers the Federal environmental protection requirements and the U.S. Occupational Safety and Health Administration (OSHA) administers the Federal worker health and safety requirements. The National Institute of Occupational Safety and Health (NIOSH) has established operational recommendations in the form of guidance documents. NIOSH is a Federal institute that provides research and technical support to OSHA and other Federal agencies. Other Federal Agencies may have regulations that apply to petroleum solvent cleaners and they are not covered in this Fact Sheet.

**Compliance with State-Level Requirements.** Most States have adopted the Federal regulations and standards into their State-level regulatory codes and are therefore authorized to carry out primary implementation and enforcement responsibilities for the Federal EPA and OSHA requirements. For example, the States responsible for implementing Federal OSHA requirements are called "State Plan States." Beyond the Federal requirements, many State environmental control and public health agencies have adopted regulations and standards that are stricter than the Federal requirements. This document does not address specific State requirements for petroleum drycleaners. Petroleum drycleaners must be knowledgeable of, and in compliance with, the regulations and standards of individual States.

### Federal Environmental Protection Regulations and Standards

EPA regulations apply to petroleum drycleaners with respect to: 1) hazardous waste handling and disposal; 2) ozone and volatile organic compound (VOC) air emissions; and 3) spill prevention and control. The EPA regulations outlined below, and related guidance documents, can be accessed on specific EPA web sites as indicated.

**DISCLAIMER** – This document provides a listing and brief description of only the current MAJOR federal environmental and worker safety regulations that affect petroleum drycleaning operations. It is not intended to be an inclusive listing of every U.S. EPA or U.S. OSHA regulation that may apply to petroleum drycleaning establishments. Further, many States have developed additional regulatory requirements that may apply to petroleum drycleaning operations. Federal and State regulatory requirements may change over time. Petroleum drycleaners must comply with all currently applicable Federal and State regulations and standards. To stay abreast of changes in regulations and standards, and to precisely determine which requirements apply to your specific operation, you should contact your regional EPA and OSHA office (listed at the end of this document) and officials of your state environmental control or public health agency.

**Region 8 [Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming]**

999 18th Street

Denver Place, Suite 500

Denver, CO 80202-2045

Thomas-Burton, Enforcement/Compliance

(8ENF-T)

(303) 312-6581, fax: (303) 312-6409

**Region 9 [Arizona, California, Hawaii, Nevada, American Samoa, Guam]**

75 Hawthorne Street

San Francisco, CA 94105

Angela Baranco, Air Division, Compliance Assistance Program

(AIR-6)

(415) 744-1196, fax: (415) 744-1073

**Region 10 [Alaska, Idaho, Oregon, Washington]**

1200 Sixth Avenue

Seattle, WA 98101

Dan Meyer, Drycleaning Project

(OAQ-107)

(206) 553-4150, fax: (206) 553-0110

**OSHA** — OSHA officials, located at the Administration's Regional Offices, are available to answer questions pertaining to compliance with worker protection and fire safety requirements. You may contact your regional OSHA office as listed below:

**Region 1 [Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont]**

Federal Building, Room E340

Boston, MA 02203

(617) 565-9860

**Region 2 [New Jersey, New York, Puerto Rico, Virgin Islands]**

201 Varick Street, Room 6701

New York, NY 10014

(212) 337-2378

**Region 3 [District of Columbia, Delaware, Maryland, Pennsylvania, Virginia, West Virginia]**

Gateway Building, Suite 2100

3535 Market Street

Philadelphia, PA 19104

(215) 596-1201

**Region 4 [Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee]**

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Atlanta, GA 30303

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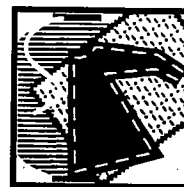
**Region 10 [Alaska, Idaho, Oregon, Washington]**

111 Third Avenue, Suite 715

Seattle, WA 98101-3212

(206) 553-5930

**How Can I Get More Information?**



Contact EPA's Pollution Prevention Information Center to receive an information packet about EPA's DfE Program, or the Garment and Textile Care Program (GTCP), or to request single copies of DfE documents. A revised DfE Publications List along with these recent GTCP publications are now available:

***Cleaner Technologies Substitutes Assessment for Professional Fabricare Processes***

(EPA 744-B-98-001)

***Cleaner Technologies Substitutes Assessment for Professional Fabricare Processes: SUMMARY***

(EPA 744-S-98-001)

***Cleaner Technologies Substitutes Assessment for Professional Fabricare Processes: Fact Sheet***

(EPA 744-F-98-011)

***Frequently Asked Questions About Drycleaning***

(EPA 744-K-98-002)

***Garment and Textile Care Resource Guide***

(EPA 744-K-98-005)

Pollution Prevention Information Clearinghouse

U.S. Environmental Protection Agency

401 M Street, SW (7409)

Washington, DC 20460

Phone: (202) 260-1023

Fax: (202) 260-4659

Email address: [ppic@epa.gov](mailto:ppic@epa.gov)

DfE Garment and Textile Care Program Web Site:

<http://www.epa.gov/dfe/garment/garment.html>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 Congress Street, Suite 1100  
BOSTON, MA 02114-2023

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September 18, 2000

David A. Nash, Director  
Waste Management Bureau  
Engineering and Enforcement Division  
Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

Re: Algonquin Gas Transmission Company, Cromwell, Connecticut

Dear David:

This is in response to your letter dated August 2, 1999 regarding the absence of secondary containment around an ancillary pipe in which hazardous waste is generated, at the Cromwell, Connecticut facility of the Algonquin Gas Transmission Company. Your letter notes the company's claim that the ancillary pipe is exempt from RCRA requirements due to its regulation under the Pipeline Safety Act. You referred this matter to EPA to determine whether there is such an exemption.

Enclosed please find a Memorandum from our legal counsel determining that the ancillary pipe is not exempt from RCRA requirements. As your letter suggests, this matter has been referred to our RCRA Enforcement Office for followup.

Thank you for your inquiry and for notifying us about this situation. Please feel free to contact me if I can be of any further assistance.

Sincerely,

A handwritten signature in black ink, reading "Edward K. McSweeney".

Edward K McSweeney  
Associate Director for Waste Policy

cc: Ken Rota, EPA RCRA Enforcement  
Gary Gosbee, Hazardous Waste Program Unit



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 Congress Street, Suite 1100  
BOSTON, MA 02114-2023

**Memorandum**

**Date:** September 18, 2000

**Subj:** Applicability of RCRA to Hazardous Waste Generated at an Interstate Gas Transmission Pipeline Facility

**From:** Jeffery Fowley, Associate Regional Counsel for RCRA, EPA Region I

**To:** Ken Rota, Chief, RCRA Enforcement Unit, EPA Region I  
(cc: David Nash, CT DEP; Kevin McSweeney and Gary Gosbee, EPA Region I)

The Algonquin Gas Transmission Company ("Algonquin") operates an interstate gas transmission pipeline that traverses Connecticut and other states. This includes a facility in Cromwell, Connecticut which has notified as a large quantity generator of hazardous waste. Condensate is generated within the main pipeline in association with pipeline compressors at that facility. This condensate first collects within the main pipeline, just upstream of the compressors. This condensate is periodically removed from the main pipeline by opening a valve, allowing the condensate to pass through an ancillary underground pipe into a storage tank. Following storage in that tank, the condensate is removed for off-site disposal. Because of its ignitability and high benzene level, the condensate has been classified as both a D001 and a D018 hazardous waste.

The pipeline facilities including the ancillary pipe are operated under the Pipeline Safety Act, 49 U.S.C. § 60101 et seq. (the "PSA") and United States Department of Transportation ("DOT") regulations promulgated at 49 C.F.R. part 192 pursuant to the PSA. These regulations do not include any requirements for secondary containment. However, secondary containment is required to be installed around storage tank ancillary equipment (such as the ancillary pipe), pursuant to the RCRA regulation at 40 CFR § 265.193(f). That regulation is incorporated by reference for large quantity generators by Section 22a-449(c)-102(a)(1) and (2)(B) of the Connecticut State Hazardous Waste Management Regulations. That same regulation also applies to large quantity generators pursuant to the incorporation by reference in 40 CFR § 262.34(a)(1)(ii) of the federal hazardous waste regulations. As documented by the CT DEP during a 1995 inspection, there is no secondary containment around the ancillary pipe, in apparent violation of that regulation.

In a legal memorandum submitted to the CT DEP dated June 6, 1997, entitled "U.S. Department of Transportation Exclusive Jurisdiction over Natural Gas Pipeline Safety

and Environmental Protection” (“Algonquin Legal Memorandum”), Algonquin argues that the ancillary pipe is exempt from the RCRA secondary containment requirement for the following reasons. First, the state hazardous waste regulations are preempted by 49 U.S.C. § 60104(c) of the PSA which provides that a “state authority may not adopt or continue in force safety standards for interstate pipeline facilities.” Second, the federal hazardous waste regulations also are rendered inapplicable by the PSA because Congress indicated in 1968 (when it enacted the provisions currently codified as the PSA) that the PSA should be the sole federal statute governing interstate pipeline “safety” (which Algonquin asserts includes environmental protection) and since “[t]here is no indication that Congress intended to modify the PSA’s role as the sole statutory authority for the regulation of pipeline safety by its [subsequent] enactment of RCRA.” Algonquin Legal Memorandum at 8. Algonquin asserts that RCRA requirements only begin to apply when the condensate is removed from the pipeline facilities in order to be disposed.

While other RCRA violations at Algonquin’s Cromwell facility were resolved by the CT DEP through the issuance of a consent order, the DEP decided not to assert jurisdiction over the ancillary pipe under State law. Rather, by letter dated August 2, 1999, the DEP referred this matter to EPA Region I to resolve whether the EPA has jurisdiction over the ancillary piping “and for followup as you may deem appropriate.” The matter was subsequently assigned to me.

For the reasons explained below, it is clear that the EPA does have jurisdiction over the ancillary pipe under RCRA. Indeed, while the EPA’s authority is even clearer, I believe that the State also could assert jurisdiction over the pipe because it is administering the federal RCRA program which is applicable to the pipe.

### 1. The Ancillary Pipe is Subject to RCRA Requirements

The general rule enunciated by the U.S. Supreme Court is that “when two [federal] statutes are capable of co-existence, it is the duty of the courts, absent a clearly expressed congressional intention to the contrary, to regard each as effective.” Morton v. Mancari, 417 U.S. 535, 551 (1974). “The cardinal rule is that repeals by implication are not favored. Where there are two acts upon the same subject, effect should be given to both if possible.” Posadas v. National City Bank of New York, 296 U.S. 497, 503 (1936). Applying this rule here, it seems clear that both the PSA and RCRA should be determined to be applicable to the ancillary pipe. There is no conflict between the lack of a requirement in the PSA for secondary containment and the RCRA requirement for secondary containment. Algonquin has presented no evidence that installing secondary containment will interfere with safe operations or compliance with DOT standards. Thus there is no obstacle to giving both acts effect.

Algonquin argues that we should instead follow the rule that “a specific statute [PSA] will not be controlled or nullified by a general one [RCRA], regardless of the priority of enactment.” Algonquin Legal Memorandum at 8. See Radzanower v. Touche Ross &

Co., 426 U.S. 148, 153 (1976). But this rule only applies when courts are forced to choose which of two contradictory statutes to enforce. “[I]f the statutes do not contradict one another no choice need be made.... At most, ... two statutes may result in promulgation of two sets of guidelines.... Such regulatory overlap is not the same as a situation where two statutes provide mutually exclusive results .... Chemical Manufacturers Association v. EPA, 673 F.2d 507, 512 (D.C. Cir. 1982).

The courts consistently have rejected claims similar to Algonquin’s. In Chemical Manufacturers Association, *supra*, RCRA subtitle D (governing non-hazardous solid wastes) was determined to be applicable to mining wastes notwithstanding that the wastes also were regulated under the Surface Mining Control and Reclamation Act. The court rejected the same arguments now being made by Algonquin that RCRA regulation should be precluded because there was a more specific statute governing the wastes with regulations that already took environmental concerns into account. *See id.* at 510, 512. Similarly, in Legal Environmental Assistance Foundation, Inc. v. Hodel, 586 F.Supp. 1163 (E.D. Tenn. 1984), mixed radioactive and hazardous wastes from a Department of Energy facility were determined to be subject to RCRA hazardous waste regulation (subtitle C) notwithstanding that the Atomic Energy Act grants the authority to regulate such wastes to the DOE.

Algonquin argues that we should follow the case of State of California v. Kleppe, 604 F.2d 1187 (9<sup>th</sup> Cir. 1979), in which the court determined that EPA Clean Air Act regulation over certain outer-continental shelf activities was precluded by a more specific statute administered by the Department of the Interior. That statute, however, expressly granted to the Department of the Interior the authority to prescribe regulations “for compliance with ...the Clean Air Act.” *Id.* at 1190. In contrast, there is nothing in the PSA that grants the Department of Transportation the authority to set RCRA requirements in place of EPA. Indeed, Algonquin has not pointed to any DOT regulation or policy document which claims the authority to regulate in place of EPA.

The legislative history of the PSA falls well short of establishing the kind of clear Congressional intent that would be necessary to preclude regulation under RCRA. Algonquin points to a committee report indicating Congressional recognition that safety standards for gas pipelines are highly complicated, and thus should be set by the DOT only after consultation with an expert committee. Algonquin Legal Memorandum at 9. This does not establish, however, that the Congress intended to preclude the EPA from applying its own expertise to regulate the discrete area of hazardous waste. The EPA is not seeking to set the overall safety standards for the pipes, and is not asserting any jurisdiction over the main transmission pipe. Algonquin also points to a statement from the Federal Power Commission submitted to the Congress acknowledging that with respect to pipe safety regulations, the PSA gives the DOT rather than the FPC the final say. Algonquin Legal Memorandum at 10. This statement about FPC vs. DOT regulation has nothing to do with whether the EPA may regulate hazardous waste.

In any event, any doubt which may have existed about whether the Congress intended the PSA to be the sole statutory authority governing environmental protection in connection with interstate gas pipelines has been resolved by the Congress when enacting and amending RCRA. The RCRA statute extensively addresses the extent to which RCRA regulations apply to matters also regulated by other federal statutes. See 42 U.S.C. §§ 6903 (27), 6905, 6921(b)(2)(A), 6921(b)(3). In particular, the Congress determined in 1980 amendments that, pending further study, RCRA regulations would not apply to, “drilling fluids, produced waters and other wastes associated with the exploration, development or production of ... natural gas.” 42 U.S.C. § 6921(b)(2)(A) (emphasis added). These wastes were made subject only to other existing regulatory programs. Id.<sup>1</sup> However, the Congress did not similarly exempt from RCRA regulation hazardous wastes (like Algonquin’s wastes) generated in connection with the transportation of natural gas. See House Conference Report No. 96-1444, section 7(1), (October 1, 1980) (distinguishing between wastes from exploration, development and production operations being exempted and wastes from transportation and manufacturing operations not being exempted). Thus the EPA has interpreted RCRA as covering “wastes generated by the [natural gas] transportation process ... because they are not intrinsically connected with [exempt] primary field operations.” RCRA/Superfund Hotline Monthly Summary, February 1989, item 2.

As pointed out in Chemical Manufacturers Association, supra, “Congress knows how to repeal [regulatory] authority unambiguously.” Id. at 513, n. 33. In the absence of Congress unambiguously creating an exemption, there is simply no basis for assuming the existence of an exemption. Where Congress has granted the natural gas industry a limited exemption, there is especially no basis for saying that Congress actually meant to grant a different, broader exemption.

It is not unusual for RCRA to impose requirements on facilities which go beyond those imposed by other federal statutes addressing safety. For example, RCRA requirements for storage of chemicals go beyond those imposed under OSHA. Additional regulation when a substance becomes a waste arises from Congress’ concern that market incentives operate less effectively to ensure careful management of wastes than they do for management of products. Additional regulation under RCRA also reflects Congress’ command that EPA’s hazardous waste regulations must include what is “necessary to protect human health and the environment,” see, e.g., 42 U.S.C. § 6923, in contrast to different standards set by Congress under other statutes. E.g., the PSA standard that protection of the environment must be “considered” by DOT along with other factors, when issuing regulations. 49 U.S.C. § 60102(b).

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<sup>1</sup> This exemption has continued since the EPA determined after doing the study required by Congress not to seek to regulate in this area.

## 2. The RCRA Requirements Which Apply to the Ancillary Pipe Include EPA Authorized State Regulations as well as EPA HSWA Regulations

The federal RCRA program in Connecticut currently consists of two parts. First, the EPA has authorized the State to administer the RCRA program and has authorized particular State regulations as part of that program. These State regulations apply to sources in Connecticut "in lieu of" federal RCRA regulations, pursuant to 42 U.S.C. § 6926(b). These state regulations include large quantity generator requirements including the secondary containment requirements at issue here. In its authorized program the State regulates all "base program" wastes including ignitable (D001) waste such as Algonquin's condensate.

In addition, the EPA directly implements in Connecticut more recent RCRA requirements adopted pursuant to the Hazardous and Solid Waste Amendments of 1984 ("HSWA"). Pursuant to 42 U.S.C. § 6926(g), EPA regulations adopted pursuant to HSWA apply directly to Connecticut sources until the State is authorized to carry out particular HSWA provisions. The State of Connecticut has not yet been authorized to carry out the Toxicity Characteristics Rule ("TC Rule"), promulgated at 55 Fed. Reg. 11798 (March 29, 1990). Thus the EPA directly administers the TC Rule in Connecticut. Among other things, the TC Rule specifies that a solid waste will be a hazardous waste (and thus be subject to hazardous waste regulations) when it fails the Toxicity Characteristics Leaching Procedure ("TCLP") test for benzene. Algonquin's condensate has been classified as "characteristic" for benzene (D018). It first became subject to this additional waste code as a result of the TC Rule. The condensate is thus subject to direct EPA regulation under the TC Rule in addition to the base program State regulations. See 55 Fed. Reg. at 11847-11849.

Both the EPA regulations applicable under HSWA and the State base program regulations require the same secondary containment. See page 1 of this Memorandum. The EPA regulations clearly are not preempted by the PSA for the reasons discussed above in section 1 of this Memorandum. Thus Algonquin must comply with the secondary containment requirement whether or not the State regulations also apply.

In the current circumstances, however, I believe that the State regulations also do apply. While Congress indicated in 1968 in adopting 49 U.S.C. § 60104(c) that "safety" regulations based on "State authority" would be preempted by the PSA, it later established in RCRA a program involving federally authorized environmental regulations. There is no indication that the 1968 Congress intended to preempt such federally authorized environmental regulations; indeed, since RCRA subtitle C had not yet been adopted, the specific issue of whether the PSA preempts regulations adopted under RCRA was of course not addressed. In contrast, when adopting and amending RCRA, the Congress subsequently and more specifically addressed the interface between RCRA and other federal statutes. As explained above in part 1 of this Memorandum, the clear intent of Congress was that there be only a limited exemption for the natural gas industry

from RCRA requirements, with no exemption for wastes generated during the transportation of natural gas. The clear intent of Congress also is that the States be authorized to carry out the federal RCRA subtitle C program. See, e.g., 42 U.S.C. § 6902(a)(7). Authorized State regulations must at a minimum be “equivalent” to the federal RCRA regulations, i.e., the federal RCRA regulations serve as a “floor.” 42 U.S.C. § 6926(b). It would defeat Congress’ overall intent to read the PSA as preempting federal RCRA requirements whenever the EPA approves a State to carry out the RCRA requirements. If the PSA was interpreted as preempting federally authorized State regulations, this would leave gaps in RCRA’s coverage and result in applicable State regulations being less stringent than RCRA’s federally required floor.

In Legal Environmental Assistance Foundation, Inc. v. Hodel, *supra*, the court determined that State RCRA regulations were applicable to the defendant Department of Energy’s facility notwithstanding DOE’s argument that such State regulations were preempted by 42 U.S.C. § 2018 of the Atomic Energy Act. See id. at 1166. I believe that a court would similarly find that State RCRA regulations are not preempted by the PSA.<sup>2</sup>

When referring this matter to the EPA, the CT DEP indicated that it had accepted Algonquin’s argument that Connecticut’s regulations are preempted. No formal or binding determination was made, however, and the State is free to rethink its position in light of the reasoning set forth above. However, since the EPA’s jurisdiction here is even clearer than the State’s, I recommend that the EPA retain the lead on this matter and take what action is appropriate.

### 3. The Absence of Secondary Containment is in Violation of RCRA Requirements

Algonquin argues that even if the State and federal RCRA regulations are not preempted by the PSA, the ancillary pipe is exempt from the RCRA secondary containment requirement by virtue of 40 CFR § 261.4(c). Algonquin Legal Memorandum at 10 - 11. That provision states (in relevant part) that hazardous waste generated in a “product or raw material pipeline” is not subject to regulation “until it exits the unit in which it was generated.”

Algonquin argues that the hazardous waste condensate is not “generated” until it enters the storage tank (after going through the ancillary pipe) since “actual separation” of the condensate from the natural gas does not occur until the natural gas is vented from the separation tank. Algonquin Legal Memorandum at 10 - 11. What Algonquin apparently is referring to is that since the condensate enters the ancillary pipe and storage tank under pressure, gas contained within the condensate subsequently is emitted.

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<sup>2</sup> In its Legal Memorandum, Algonquin cites several cases which hold that State safety regulations are preempted by the PSA. However, none of these cases suggests that federally authorized environmental regulations would be preempted.

But the condensate initially accumulates in the main transmission pipe. This is the RCRA exempt unit. When the condensate exits this unit, it becomes subject to RCRA regulation under the terms of 40 CFR § 261.4(c). The fact that additional gas is subsequently emitted from the condensate no more exempts it from RCRA regulation than the fact that emissions occur from solvents exempts them from RCRA regulation. The ancillary pipe is included within the definition of "ancillary equipment" to a hazardous waste storage tank and is regulated under 40 CFR § 265.193(f). See 40 CFR § 260.10, 6<sup>th</sup> definition.

Finally, the CT DEP has suggested that in light of the alternative design and operating practices employed by Algonquin, it might qualify for a variance from the secondary containment requirement pursuant to 40 CFR § 265.193(g)(1). Unless and until Algonquin applies for and obtains such a variance, however, it is in violation of the requirement.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

1353

June 20, 2000

Mr. William Sirull  
MADEP Bureau of Waste Prevention  
Business Compliance Division  
One Winter Street  
Boston, MA 02108

re: Request for Regulatory Interpretation on Expended or Unexploded Munitions

Dear Bill:


This letter is in response to your e-mail dated May 10, 2000 regarding your request for a regulatory interpretation from the Hazardous Waste Program Unit of EPA New England regarding the status of expended lead shot under RCRA when it is disposed of. In particular you asked: "if a person excavates the expended or unexploded munitions, is that material a solid waste and assuming it fails TCLP for lead, is it a hazardous waste if disposed of (as opposed to recycling it as scrap metal)?"

Your question results from your review of two letters from EPA which state that the discharge of ball and sport ammunition at shooting ranges does not constitute hazardous waste disposal since the munitions are being used for their intended purpose (September 6, 1988 letter from Sylvia Lowrance, OSW to Jane Magee, INDEM and an undated letter from Julie Belaga, EPA Region 1 to Charles Fox of Candia, NH). EPA has restated this position in an Amicus brief prepared by EPA, HQ for the District Court of the Southern District of New York, submitted on September 29, 1995. In particular, on page 21 of that brief EPA writes: "The discharge of lead shot and target fragments in the normal use of those products at a shooting range does not fall within the regulatory definition of "solid waste" because it does not constitute the "abandonment" of those materials "by being disposed of" pursuant to 40 C.F.R. 261.2(a) & (b)." EPA had stated similar views in a prior August 28, 1992 Amicus Curiae

Bill Sirull  
June 20, 2000  
Page 3

We appreciate the opportunity to provide you with our input. Should you have any questions regarding our response please do not hesitate to contact Sharon Leitch at (617)918-1647.

Sincerely,



Edward K. McSweeney, Associate Director  
Waste Policy

cc: G. Gosbee, Chief, Hazardous Waste Program Unit, EPA  
M. Hoagland, Chief, RCRA Corrective Action Unit, EPA  
K. Rota, Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
J. Miller, Chief, Waste Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC



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REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

1252

May 10, 2000

Mr. Richard Kaselis  
Division of Oil & Hazardous Waste Facilities Regulation  
Bureau of Remediation & Waste Management  
Maine Department of Environmental Protection  
17 State House Station  
Augusta, ME 04333-0017

Re: Pioneer Plastics - Response to Questions

Dear Mr. Kaselis:

I would like to apologize for the delay in responding to your letter of May 24, 1999 in which you had questions regarding how gaseous emissions from the hazardous waste treatment process at Pioneer Plastics would be regulated. Stephen Yee of the Hazardous Waste Program Unit spoke with you in January concerning the questions you raised. At that time, you indicated that you still wanted a written response.

The questions you raised in your letter are as follows: "Are these volatile emissions a hazardous waste if they are in a gaseous state and do not contain any listed waste constituents? Or are the emissions a hazardous waste because they are derived from the hazardous waste treatment process? If the gaseous emissions are a hazardous waste, what requirements and licenses would be required under federal rules?"

It is our understanding from the subsequent clarifications that the process at Pioneer Plastics has changed, and this is discussed later in our response. However, we would like to address your previously listed questions.

In general, volatile gaseous emissions are not regulated under RCRA unless they are from a hazardous waste treatment process or waste is managed in tanks, containers, surface impoundments, and certain miscellaneous units. The gaseous emissions from the treatment process would be subject to the RCRA, 40 CFR Parts 264/265, Subparts BB and CC air emission requirements if the average volatile organic concentration of the hazardous waste at the point of waste origination is 500 parts per million by weight (ppmv) or greater. The performance standards for organic air emissions can be found in 40 CFR §§ 265.1084 to 1088 and §§ 264.1084 to 1087.

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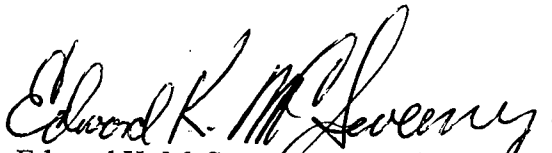
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In the scenario concerning the neutralization of the corrosive waste, the neutralized waste would not be subject to the RCRA requirements as long as it does not fail for any of the characteristics of hazardous waste or contains any listed waste. The emission from the oxidizer unit when it is treating this material may be subject to your agency's or the Clean Air Act air emission requirements. The residues from the oxidizer may be subject to your agency's solid waste disposal requirements.

EPA is assuming that this testing is done at the distillate weigh tank and is not conducted after the material is placed in storage in the tank system. The air emission requirements may apply to the distillate weigh tank and the storage tanks if the average volatile organic concentration of the hazardous waste at the point of waste origination is 500 parts per million by weight (ppmv) or greater. The facility should have a waste determination procedure that includes the determination of the volatile organic concentration(s) in place to ensure the waste is properly handled and stored prior to being shipped off-site or treated in the boiler.

If you should have any question concerning this correspondence, please contact Stephen Yee of the Hazardous Waste Program Unit at (617) 918-1197.

Sincerely,

  
Edward K. McSweeney, Associate Director  
Office of Ecosystem Protection

cc: Gary Gosbee, EPA  
Ken Rota, EPA  
Matt Hoagland, EPA  
Sharon Leitch, EPA  
Jim Gaffey, EPA  
Jeff Fowley, EPA



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

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**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

May 9, 2000

Linda L. Baetz, Program Manager  
Hazardous and Medical Waste  
U. S. Army Center for Health Promotion and Preventive Medicine  
5158 Blackhawk Road  
Aberdeen Proving Ground, Maryland 21010-5422

Re: Hazardous Waste Status of Flameless Ration Heaters

Dear Ms. Baetz:

This letter is in response to your correspondence dated March 14, 2000 in which you request input regarding the Army's approach to the management and disposal of unused Flameless Ration Heaters (FRHs). In that correspondence you indicate that the Army does not define unused FRHs as hazardous waste under RCRA and therefore, would dispose of them in accordance with municipal waste disposal practices.

Based on our review of your letter we would not agree that the unused FRHs when disposed of are not hazardous waste. The US EPA has clarified its position that this material is a characteristic hazardous waste for reactivity in a letter dated May 20, 1999, from Robert Tonetti of the Office of Solid Waste to Peter Levigne at the Headquarters of the U.S. Army Soldier Systems Command. This is due, in part, to the fact that the unused heaters would no longer be used for their intended purpose and that the magnesium contained in the heaters reacts violently with water (40 CFR §261.23(a)(2)). Please note that the EPA New England states are all authorized to administer and enforce the base RCRA program in lieu of the federal program and, in particular, have regulatory authority regarding hazardous waste determinations. Therefore, the Army should consult with appropriate state personnel in each of the individual States regarding specific requirements for the disposal of FRHs in New England.

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units, accumulation time and quantity, preparedness and prevention, contingency plan, personnel training, onsite management of waste, air emission requirements, land disposal plan, record keeping, and biennial reporting. A SQG is required to meet many of the preceding requirements and a CESQG usually is not subject to RCRA requirements provided that it meets the criteria of offsite management of the waste. Please note that some states may not recognize CESQG status, and may have more stringent requirements. You should consult with your state environmental agency to find out the differences.

The definitions and the appropriate federal RCRA regulations for the three hazardous waste generator types can be found in EPA's new series of publications i.e., "RCRA in Focus". The issues currently available are Printing (EPA530-K-97-007), Photo Processing (EPA530-K-99-002), Vehicle Maintenance (EPA530-K-99-004), and Dry Cleaning (EPA530-K-99-005). The general and case specific information in these publications can serve as references and examples for your clients on how to manage their waste. There is a table in each issue which lists RCRA regulatory requirements and check lists for the three types of generators. You can contact the RCRA Hotline, toll-free at (800)424-9346 or TDD (hearing impaired) (800) 553-7672 for the series. It is also available on the Internet at <http://www.epa.gov/epaoswer/hazwaste/id/infocus/index.htm>.

As for the question about being out of compliance because of unknown materials being present during an inspection, EPA can not agree that it is ever legal to store waste marked "unknown." In order to minimize any potential violations, your client (LQG or SQG) should at least comply with the following RCRA regulations. Specifically, the regulation in 40 CFR 262.34 (a)(3) requires that the generator labels or marks the container clearly with the words "Hazardous Waste" while accumulating waste on site, and § 262.34 (c)(1)(ii) requires that the generator marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the container while accumulating waste in a satellite accumulation area. Since the generator status may also determine the length of time (e.g., 90 or 180 days) that the waste can be accumulated on site without a permit or without interim status, the regulation in § 262.34(a)(2) requires that the date accumulation begins is clearly marked for inspection on each container, except in satellite accumulation area where up to 55 gallons of hazardous waste or one quart of acute hazardous waste can be accumulated without time limitation (§ 262.34 (c) (1)). In addition, the generator should check to determine if he needs to comply with subpart I of 40 CFR part 265 on the use and management of containers (§ 262.34(a)(1)(i) & § 262.34 (d) (2)).

EPA encourages your client to minimize the use of hazardous materials wherever possible, and to implement a chemical hygiene plan. The chemical hygiene plan is designed to address the proper management of hazardous materials and help your client avoid situations where chemicals can not be identified.

Question #2: Another issue that is fairly common is related to the generation of hazardous waste from machinery and/or equipment(i.e.: HPLC machines). We have found this to be a gray area in the regulations. When these types of machines generate hazardous waste, the issue becomes the point of generation of the waste. Is the point of generation the container where the waste is accumulated out of the machine, or is it where that container is emptied into another container? AETS/Onyx usually leaves this decision up to the safety departments of our clients. If they persist in asking , we tell them to go worst case and treat the container connected to the machine as the satellite waste container. We recently received information from a contact at the Massachusetts Department of Environmental Protection (DEP) that the DEP would not consider the container connected to the machine as a satellite container. Reasoning for this is because the attached container is considered part of the machine. Is this the same approach that the EPA would take?

Response : EPA's approach is to treat the container connected to the HPLC machine as a satellite accumulation container, because this container is at or near the point of generation where the waste initially accumulated out of the machine, and is therefore subject to RCRA requirements on marking and labeling (40 CFR 262.34 (c) (1) and § 262.34 (c)(1)(ii)). Nonetheless, if the waste in this container is emptied into another larger container in the same laboratory with compatible waste for consolidation purposes, the "larger" container can also be considered as a satellite container, as long as the larger container is at or near the point of generation, under the control of one of the operators in the laboratory who is generating such waste, and the total amount of the waste in the container does not exceed 55 gallons (or one quart of acutely hazardous waste). If the large container is not at or near the point of generation, it must be marked with the date that the container first received waste and leave the site within 90 or 180 days of receipt depending on the generator status (40 CFR 262.34(a) & §262.34(d)).

Question # 3: The last issue we have is the use of logbooks to document weekly hazardous waste accumulation areas and satellite hazardous waste areas. AETS/Onyx prefers that our client maintain a logbook of these weekly inspections to document that weekly inspections have been done. Again, there is no

Mr. Richard Finnegan

April 13, 2000

Page 4

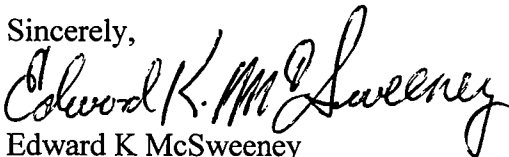
regulatory requirement that written documentation of these inspections is necessary. During an inspection, would EPA want to see documentation that these weekly inspections have been performed? If so, what would EPA's reaction be if these logbooks were not available?

Response : Pursuant to 40 CFR 262.34, a LQG or SQG who accumulates hazardous waste in a container must meet the standards in subparts I of 40 CFR part 265 which include weekly inspections for leaks and deterioration (§265.174) in the waste accumulation area . It is helpful to use the logbook or other written document as the proof that the generator has done the weekly inspections, and it is the generator's responsibility to demonstrate that weekly inspections are conducted. As for satellite accumulation areas, because the generator only needs to comply with § 265.171, §265.172, and §265.173 (a), the documentation for weekly inspections is not required.

Since your company serves clients in both Massachusetts and Rhode Island, you should also confer with these states on the above issues. States with authorized RCRA programs may have more stringent requirements.

I hope this letter has addressed your concerns. If you have any further questions, please call Ken Rota at (617) 918-1751 or Jui-Yu Hsieh at (617) 918-1646.

Sincerely,



Edward K McSweeney

Associate Director for Waste Policy  
Office of Ecosystem Protection

cc: Ken Rota, EPA, OES  
Gary Gosbee, EPA, OEP  
Matt Hoagland, EPA, OSRR  
Jeffrey Fowley, EPA, ORC  
Bill Sirull, MA DEP  
Leo Hellested, RI DEM  
Peter Marshall, VT DEC  
John Duclos, NH DES  
Dave Sattler, CT DEP  
Stacy Ladner, ME DEP

12/99  
Reg 15120f

Richard Finnegan  
AETS/Onyx Environmental  
398 Cedar Hill Street  
Marlboro, MA 01752  
August 6, 1999

Ken Rota  
EPA-New England Region 1  
1 Congress Street Suite 1100  
Boston, MA 02114

Ken,

Hi Ken. You introduced yourself at the EPA Conference in Kittery, Maine a couple of weeks ago. I would like to introduce myself. I am a project manager for AETS/Onyx Environmental Services for Boston, Cape Cod, and State of Rhode Island areas. Thank you for your perspective and assistance at the conference. It was very informative.

As you know, there was a limited time period for questions, specifically relating to RCRA requirements for Hazardous Waste. I was approached by a few customers to try and contact your agency regarding some issues that they have. They have some difficulties and would like to have an EPA interpretation of requirements. The following summaries outline some issues they would like some clarification on:

1. We have a client who occasionally has unknown bottles of waste chemicals in gallon size or smaller containers (lab pack quantities). Obviously, a generator should not have any unknown wastes, but occasionally this does occur. AETS/Onyx can assist in identifying these wastes for the client. Our client's main concern is how they can manage these wastes in the interim period between the discovery of the unknown waste and the service to identify the waste material. They are concerned that if ever there was an inspection, that they would be out of compliance because of unknown materials being present. If they placed these unknown bottles of chemicals in their hazardous waste accumulation area with a sign indicating "Unknown Hazardous materials pending analyses", treated and labeled the materials as a RCRA hazardous waste, identified each bottle as an unknown pending analyses, would this be acceptable for compliance with EPA requirements? I understand that there may be some technicalities with this, but it may show good faith on the part of the generator to attempt to comply with RCRA. If you have any suggestions on a better way to handle this type of situation, I am open to any ideas.
2. Another issue that is fairly common is related to the generation of hazardous waste from machinery and/or equipment (i.e.: HPLC machines). We have found this to be a gray area in the regulations. When these types of machines

generate hazardous waste, the issue becomes the point of generation of the waste. Is the point of generation the container where the waste is accumulated out of the machine, or is it where that container is emptied into another container? AETS/Onyx usually leaves this decision up to the safety departments of our clients. If they persist in asking, we tell them to go worst case and treat the container connected to the machine as the satellite waste container. We recently received information from a contact at the Massachusetts Department of Environmental Protection (DEP) that the DEP would not consider the container connected to the machine a satellite container. Reasoning for this is because the attached container is considered part of the machine. Is this the same approach that the EPA would take?

3. The last issue we have is the use of logbooks to document weekly hazardous waste accumulation areas and satellite hazardous waste areas. AETS/Onyx prefers that our clients maintain a logbook of these weekly inspections to document that weekly inspections have been done. Again, there is no regulatory requirement that written documentation of these inspections is necessary. During an inspection, would EPA want to see documentation that these weekly inspections have been performed? If so, what would EPA reaction be if these logbooks were not available?

I apologize for this being a little lengthy, but I wanted to make sure you understand the concerns involved. Thanks in advance for your help and ideas.

Sincerely,



Richard Finnegan  
Project Manager



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

April 11, 2000

Ross Atkinson, Accounts Manager  
Poly-Pacific International, Incorporated  
8918-18 Street  
Edmonton, AB, Canada T6P 1K6

Dear Mr Atkinson:

Thank you for your brochure and accompanying letter that describes your Multicut® Plastic Media Blasting Recycling Program. In your letter you have requested confirmation from me that the RCRA exemption pursuant to 40 C.F.R. § 261.2(e)(1)(i) is applicable to your process. As I discussed during our prior conversation, you should direct your inquiry to the U.S. EPA's Office of Solid Waste in Washington, D.C. for a formal response. I have already stated to you that the spent blasting media would require a hazard determination and, if found to exceed any characteristic levels of toxic constituents, would subject the spent material to the full scope of the hazardous waste regulations at the facility generating this waste. I also made you aware of a situation in the State of Connecticut where a business conducted that same type of operation and is now a candidate for the Superfund Program due to the widespread contamination caused by the contaminants that were contained in the plastic blasting media.

The issue as to whether this material is a legitimate feedstock for recycling purposes is one which EPA Headquarters should address. Your inability to explain whether toxic materials would normally be used in the production of plastic lumber in the absence of hazardous wastes that are currently received as feedstocks by your facility is probably an issue that the Office of Solid Waste should consider in its legitimacy determination of your recycling process.

Sincerely,

A handwritten signature in black ink, which appears to read "Kenneth B. Rota". The signature is stylized and fluid.

Kenneth B. Rota, Chief  
RCRA Compliance Unit  
EPA-New England Office

cc: Kevin McSweeney, OEP  
Gary Gosbee, OEP

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BOSTON, MASSACHUSETTS 02114-2023

March 27, 2000

Mr. Thomas P. Balf  
Nexus Environmental Partners  
One Financial Center  
Boston, MA 02111

RE: Regulations applicable to hazardous waste generators on college/university campuses

Dear Mr. Balf:

This letter is a reply to your February 4, 2000 and March 1, 2000 e-mails to Lisa Papetti of EPA-New England's Office of Environmental Stewardship requesting interpretations of Resource Conservation and Recovery Act (RCRA) regulations. Your questions specifically relate to the generation and transportation of hazardous waste at a campus location:

**Question One**

A university that is a large quantity generator (LQG) of hazardous waste has a remote location that is a very small quantity generator of hazardous waste (VSQG). Can the university send RCRA and DOT trained university personnel to the remote facility and transport hazardous waste back to the main accumulation area/LQG?

The federal regulations allow shipments of hazardous waste to entities "authorized to manage hazardous waste" by authorized states. See 40 C.F.R. § 261.5(f)(3)(iii) and (g)(3)(iii).

The State of Vermont is authorized by EPA to implement regulations found at Vermont Regulation Section 7-306(c)(2)(D). This regulation allows a conditionally exempt small quantity generator to ensure delivery of waste to another site in Vermont owned and operated by the same owner and operator as the conditionally exempt small quantity generator that meets the small quantity or large quantity generator standards. Vermont's authorized regulations also allow a conditionally exempt small quantity generator to transport his or her own waste without a permit as long the generator complies with Section 7-306(c)(3).

EPA is currently working with the Massachusetts Department of Environmental Protection (MA DEP) and the New Hampshire Department of Environmental Services (NH DES) to authorize similar regulations in those states.

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Mr. Thomas P. Balf

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March 27, 2000

## Question Two

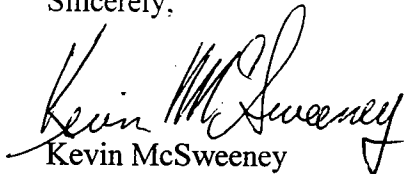
A private entity is conducting activities in a research building located on property that is contiguous with that of a university/LQG and under the same EPA identification number. Can the university send RCRA and DOT trained university staff to the private entity and transport hazardous waste back to the main accumulation area/LQG? Are there different requirements if the building is a non-university building? Are there different requirements if reimbursement is provided for services?

Transportation of hazardous waste throughout a contiguous property is not required to be accompanied by a manifest and 40 C.F.R. § 263 transporter requirements do not apply. The person who identifies themselves as the generator of the waste by use of an EPA identification number also takes responsibility for management of hazardous waste from the time it is generated on-site until it reaches its final destination. This responsibility includes any measures taken to address releases, emergency coordinator duties and training. If a state has issued one EPA identification number to the university and the private entity as a whole, the generator (in this case, the university) remains fully responsible regardless of any business or other agreement made by an entity located on the generator's property.

7 EPA allows states flexibility in issuance of EPA identification numbers, and some states issue separate numbers to distinct entities at one location. You may want to check with the New England states to clarify the issuance of EPA identification numbers in this scenario. Generators with separate identification numbers are individually responsible for their waste.

If you have any further questions, please contact Lisa Papetti of EPA-New England's Office of Environmental Stewardship at (617) 918-1756.

Sincerely,



Kevin McSweeney

Associate Director for Waste Policy

cc: K. Rota, EPA-OES  
L. Papetti, EPA-OES  
G. Gosbee, EPA-OEP  
M. Hoagland, EPA-OSRR  
J. Fowley, EPA-ORC  
J. Miller, MA DEP  
J. Duclos, NH DES

D. Sattler, CT DEP  
L. Hellested, RI DEM  
S. Ladner, ME DEP  
P. Marshall, VT DEC



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

March 13, 2000

Michael Conway, Vice President  
GZA, GeoEnvironmental, Inc.  
320 Needham Street  
Newton Upper Falls, MA 02464-7769

re: Request for Agency Interpretation on "Area of Contamination" Policy and its  
Application to TCLP Lead and PCB Soil

Dear Mr. Conway:

The Hazardous Waste Program Unit of EPA New England is in receipt of your letter dated January 20, 2000, in which you request the EPA's interpretation of the "Area of Contamination" (AOC) policy as it applies to the proposed remediation of soils contaminated with lead in excess of the Toxicity Characteristic (TC) level and with polychlorinated biphenals (PCBs). In your letter you propose to treat the lead in the soil through stabilization using the Maectite process and subsequently have the remaining PCB-contaminated soil disposed of under TSCA requirements. Your primary concern is that the Land Disposal Restrictions (LDRs) no longer be applicable to the soil after it has been treated for lead contamination given the limitations of the LDR universal treatment standards for PCB in soil. To support this, you refer to Section VII (B)(9) and footnote 43 on page 28617 of the LDR Phase IV Final Rule which suggests that once the soil is treated in the AOC for the hazardous waste characteristic of toxicity removal of the soil from the AOC would not constitute the generation of hazardous waste.

The purpose of the AOC policy is to allow certain activities within the area to deal with the management of contaminated soils without triggering RCRA requirements and therefore, encourage clean-up. Those activities include consolidation and *in situ* treatment of hazardous waste. For waste that is actively managed (e.g. treated *ex situ*) within or outside the AOC and then returned to the land RCRA requirements would apply. As indicated in the LDR Phase IV rule, nothing in that rule changes the affect of the AOC policy.

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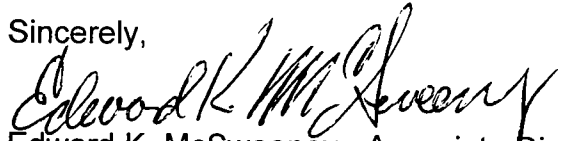
Michael Conway  
Page 2  
March 13, 2000

EPA has always considered the act of removing soil from the ground and then treating it in separate units either inside or outside of the AOC as constituting a RCRA activity (treatment). EPA New England has addressed this issue in previous correspondence, see attached letter dated December 22, 1997, to Mr. Peter M. Zuk of the Central Artery/Tunnel Project. In that letter there is a discussion regarding the applicability of RCRA requirements to *in situ* treatment (treatment occurring prior to removal of soil from the ground) and *ex situ* treatment (treatment occurring after removal of soil from the ground). As we indicated in the letter to Mr. Zuk, removal of soil from the ground in order to treat it for a toxicity characteristic is considered a RCRA activity.

In summary, LDRs and other RCRA requirements would apply to an activity that treats a TC soil within the AOC if that soil is removed from the ground prior to treatment.

If you have any questions regarding this or any other issue, please do not hesitate to contact Sharon Leitch, in the Hazardous Waste Program Unit, at (617)918-1647.

Sincerely,



Edward K. McSweeney, Associate Director  
Waste Policy

cc: G. Gosbee, Chief, Hazardous Waste Program Unit, EPA (w/o)  
M. Hoagland, Chief, RCRA Corrective Action Unit, EPA  
K. Rota, Chief RCRA Enforcement Unit, EPA (w/o)  
J. Fowley, Atty., ORC-EPA (w/o)  
J. Miller, Chief, Waste Branch, MADEP (w/o)  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES (w/o)  
D. Sattler, Supervisor, WEED, CTDEP (w/o)  
L. Hellested, Chief, Waste Management, RIDEM (w/o)  
S. Ladner, Supervisor, Licensing Unit, MEDEP (w/o)  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC (w/o)

enclosure



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION I**  
**JOHN F. KENNEDY FEDERAL BUILDING**  
**BOSTON, MASSACHUSETTS 02203-0001**

164

December 22, 1997

Peter M. Zuk, Project Director  
Massachusetts Highway Department  
Central Artery/Tunnel  
One South Station  
Boston, MA 02110

re: Central Artery/Tunnel (CA/T) Project  
Proposed Treatment Process for Toxicity Characteristic (TC) Soil

Dear Mr. Zuk:

The Hazardous Waste Program Unit of EPA-New England is in receipt of your letter dated December 1, 1997, in which you inform EPA of your intention to implement a process to remove and treat TC-lead contaminated soil from the CA/T Project on a project-wide basis. Implementation of the process is based upon the results of pilot studies performed on 250 cubic yards of TC-lead excavate which successfully demonstrated that all of the TC-lead levels were reduced to levels well below the regulatory limit of 5.0 mg/l. In that letter you state that you intend to treat lead-contaminated soil by applying and mixing a liquid reagent with the TC-soil in order to reduce the leachability of metals by crystal mineralization.

As indicated above, the soil contains lead which may be found at levels that would define it as a hazardous Toxicity Characteristic (TC) waste. The TC rule was promulgated by EPA under the authority of the Hazardous and Solid Waste Amendments (HSWA) and therefore is implemented by EPA in all states until such time that the states become authorized for the rule. The Commonwealth of Massachusetts will be seeking authorization for the TC rule during 1998. The implications of this on your situation would be that if the process is deemed to need a RCRA Part B permit because of the TCLP test, EPA would be the permit issuing authority in states that do not have TC authorization.



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In your correspondence two general treatment scenarios are proposed to implement the previously defined treatment process. These scenarios have been interpreted by the environmental consultants to the CA/T project as being exempt from the RCRA permitting process. The scenarios are as follows: Scenario 1- "Treatment of Confirmed TC-Soil In Situ" proposes to apply the liquid reagent to in-situ soil that exceeds or potentially exceeds the regulatory limit for TC-lead. The reagent will be applied to treat the soil in lifts of 18" to 24" deep. As indicated in the letter, the treatment process occurs almost instantaneously upon application of the reagent and, therefore, when the treated soil is excavated it is no longer considered a RCRA hazardous waste. This treatment scenario, as indicated above, is considered to not need a RCRA permit. EPA agrees with this interpretation since no hazardous waste is being generated under this scenario. Additionally, as indicated in the letter the handling and storage of any treated stockpiled-soil will be done in accordance with the November 1993 Compliance Plan approved by DEP within the AOC ("area of contamination"); Scenario 2- "Treatment of TC-Soil in Tanks and/or Containers" proposes to treat the excavated TC-soil within the identified AOC by applying the reagent to the soil as it is being placed in watertight containers. The treated soil will be stored in the same manner as indicated under Scenario 1. As mentioned previously, this treatment scenario as proposed is considered not to need a RCRA permit. EPA, again, agrees with this interpretation, assuming that the requirements discussed below are met. However, since a hazardous waste is being generated certain generator requirements must in any event be met.

The exclusion from permitting which may apply to your process is found in 40 CFR § 264.1, which states that the requirements of Part 264 - Standards for owners and operators of hazardous waste TSDFs, do not apply to:

A generator accumulating waste on-site in compliance with 40 CFR § 262.34. In connection with such accumulation, the EPA also has determined that permits are not required for generators treating their hazardous wastes in the generators' tanks or containers in conformance with the requirements of § 262.34 and Subparts I or J of Part 265. See 51 Fed. Reg. at 10168 (March 24, 1986), and 40 C.F.R. § 268.7(a)(4).

In order to qualify for this exemption from the permitting requirement, the waste must be treated by the generator and stored for no more than 90 days. In addition, the waste must be treated within tanks or containers as defined in 40 C.F.R. § 260.10. Finally, all parts of your system involved in storing and treating the waste must meet the requirements of 40 C.F.R. § 262.34 and 40 C.F.R. Part 265, Subparts I or J, and


Subparts AA, BB, and CC. In order to be excluded from the permitting requirement, you need to ensure that all of these requirements are met.

Assuming that you do qualify for the exemption from permitting, you must still meet all applicable generator requirements. In removing any soil which is a hazardous waste, you are considered to be generating a hazardous waste, even if it is then rendered non-hazardous by your treatment. The applicable requirements include obtaining an EPA ID number as the generator of a hazardous waste. 40 C.F.R. § 262.12.

In addition, while the treated soil will be non-hazardous if it does not fail the Toxicity Characteristic, it still must meet all applicable land disposal restrictions (LDR). The current LDR treatment standard for lead for this type of waste is 5.0 mg/l TCLP. As a generator treating wastes subject to LDR, you also will be required to develop and follow a written waste analysis plan pursuant to 40 C.F.R. § 268.7(a)(4).

Although an EPA permit will not be required for the treatment process if you meet the requirements stated above, you are reminded that individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, you will need to contact the state for a determination regarding its views on the regulatory status of the treatment process. Since Massachusetts is authorized for the base RCRA program, which includes sections 261, 262, and 264 of 40 CFR, it maintains the authority to make more stringent determinations regarding exclusions.

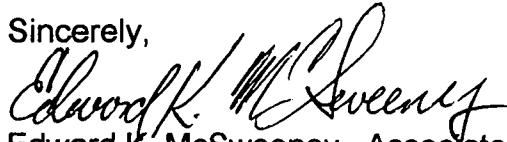
In summary we believe for reasons previously discussed that an EPA hazardous waste permit will not be required for the above activity under Scenario 2 if you meet the requirements discussed above. However, the Massachusetts Highway Department will be subject to federal generator requirements, including LDR requirements, and also should contact the MADEP to determine if there are provisions that are more stringent or broader in scope than EPA's.



Peter M. Zuk  
Page 4  
December 22, 1997

If you have any questions regarding this or any other issue, please do not hesitate to contact Gary Gosbee, Chief, Hazardous Waste Program Unit at (617) 565-3725. You may also contact Sharon Leitch, of his staff, at (617)565-4879.

Sincerely,



Edward K. McSweeney, Associate Director  
Waste Policy

cc: G. Gosbee, Chief, Hazardous Waste Program Unit, EPA  
K. Rota, Acting Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
J. Miller, Chief, Waste Branch, MADEP  
J. Carrigan, Compliance Assessment Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Supervising Engineer, RIDEM  
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC

January 20, 2000  
File No. 00-904

1352  
**RECEIVED**  
JAN 26 2000

HAZARDOUS WASTE PROGRAM UNIT



Kevin McSweeney  
Associate Director for Hazardous Waste  
Office of Ecosystem Protection  
USEPA Region 1  
One Congress Street  
Suite 1100 - CAA  
Boston, MA 02114-2023

320 Needham Street  
Newton Upper Falls  
Massachusetts  
02464-1594  
617-969-0050  
FAX 617-965-7769  
<http://www.gza.net>

Re: Request for Agency Interpretation on  
"Area of Contamination" Policy and its  
Application to TCLP Lead and PCB Soils

**COPY**

Dear Mr. McSweeney:

The purpose of this letter is to request United States Environmental Protection Agency (EPA) interpretation of existing regulations and policies with respect to the "Area of Contamination" (AOC) policy/concept and its application to a proposed remedial approach for soils containing lead and polychlorinated biphenals (PCBs). I write to you at the suggestion of Raphael Cody of EPA's RCRA Corrective Action Section who I was referred to by Frank Gardner of EPA's Superfund Removal Program.

The subject material is primarily soil and some debris. It is at a former scrap yard. It has been "accumulated" or "consolidated" within the existing area of contamination. Sampling and analyses indicate that the accumulated material (and surrounding unaccumulated material) exhibits lead above 5.0 ppm (by the Toxicity Characteristic Leaching Procedure (TCLP)) and PCBs above 100 ppm. The goal is to cost effectively clear the site to allow future development. The most cost effective approach we have identified is to stabilize the lead by treatment within the area of contamination and then landfill the remaining PCB-containing soils under the purview of the Toxic Substances Control Act (TSCA). Because the universal treatment standard (UTS) for PCBs in soil is 100 ppm, for this approach to be possible, it is necessary for the Land Disposal Restrictions (LDRs) to not apply.

As I read the existing regulations and policies, support for the position that LDRs do not apply may be found in the existing AOC concept as it is disseminated throughout various regulations and policies. One of these regulations/policies which I believe supports our proposed approach is the preamble of the Federal Register/Vol. 63. No. 001/Tuesday May 26, 1998/Rules and Regulations: Part II, Environmental Protection Agency, 40

CFR Parts 148, 261, 266, 268, and 271 Land Disposal Restrictions Phase IV, Final Rule (LDR Phase IV Final Rule).



Specifically, Section VII (B)(9) and footnote 43 on page 28617 of the LDR Phase IV Final Rule suggests that if the TCLP lead characteristic is eliminated by stabilization treatment prior to its removal from the AOC, the subject material has not been "generated" under the Resource Conservation and Recovery Act. Therefore, the LDRs and the universal treatment standards would not apply.

Again, after successful lead stabilization, the PCB contaminated soil is still fully regulated under TSCA and would be required to be disposed in an appropriately permitted landfill, subject to the landfill's acceptance criteria and operating permit.

Mr. Cody suggested that a stabilization treatment process may be possible to implement without a Corrective Action Management Unit (CAMU) or Temporary Unit (TU) permit if such a treatment process could be conducted entirely within the AOC in enclosed and containerized equipment and tanks. For your information, the planned stabilization treatment methodology is the Maectite process which can be implemented in this manner. However, although Mr. Cody explained the regulatory basis for such a remedial approach, I would request a more formal agency clarification of the regulations with respect to this matter.

As indicated above, we are requesting an interpretation of the existing AOC regulations and policies as they may apply to our proposed remedial approach, and, hopefully, some indication of agency concurrence.

If I can answer any questions, or otherwise assist your review in any way, please contact me directly at 617-630-6550.

Thank you very much for your consideration of this request.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read 'mfc', followed by a long, sweeping horizontal line that loops back under the signature.

Michael F. Conway, P.E., LSP  
Vice President

\\00.904mfc\PREQUAL\Epaques2.doc



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 3, 2000

Mr. Robert W. Curry  
Edwards & Angell, LLP  
101 Federal Street  
Boston, MA 02110-1800

Re: Request for Hazardous Waste Regulation Interpretive Advice

Dear Mr. Curry:

This letter is in response to your correspondence dated September 14, 1999 in which you request EPA's assessment of your client's wastewater treatment sludge. As indicated in your letter, your client had recently acquired a business which includes a wafer manufacturing segment that is represented in process flow diagrams which were included with your letter as attachments. A portion of this manufacturing operation includes an "electroless" plating process. In particular, you ask whether EPA's December 2, 1986 interpretive rule (see 51 F.R. 43350), which clarified that "electroless" plating is specifically exempted from the scope of the F006 hazardous waste listing would also exempt "electroless" plating from the scope of the F007 through the F009 listings. You ask this question since the previous practice at your client's facility was to have the wastewater treatment sludge resulting from these manufacturing operations shipped off-site as a non-hazardous waste and are wondering whether or not these wastes should be considered F-listed hazardous waste.

Our response to your request will be two-fold. We will first address the question of the applicability of the 1986 interpretive rule to your client's electroless plating operations and we will then address the potential applicability of the hazardous waste listings to your clients wastewater treatment sludges.

Please note that the State of Massachusetts, in accordance with Section 3006 of the Resource Conservation and Recovery Act (RCRA), is authorized to administer and enforce the base RCRA program in lieu of the federal program and, in particular, has regulatory authority regarding hazardous waste determinations. Therefore, you should consult with the appropriate state personnel regarding your request.

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Mr. Robert W. Curry  
February 3, 2000  
Page 2 of 3

As indicated above, on December 2, 1986, EPA issued an Interpretive Ruling which clarified that "electroless" plating was specifically exempted from the scope of the F006 hazardous waste listing. This Ruling, however, was silent regarding the applicability of this "exemption" to the F007, F008 and F009 listings. In August of 1989 EPA issued a "RCRA/Superfund Hotline Summary", document number 9432.1989(01), which addressed this issue. That summary indicated that even though the above referenced clarification was specifically written for the F006 listing, an analogous assessment could be made for the F007, F008 and F009 listings. In other words, the solutions and residues resulting from those operations defined in the F007 through F009 listings would not meet the listing criteria if those solutions and residues resulted from *electroless* plating operations. These wastes, however, would still be subject to the hazardous waste regulations if they exhibit any of the characteristics found in 40 CFR Part 261.20 through 261.24.

Included with your letter are process flow diagrams which appear to show the various wafer manufacturing process steps. While it is not entirely clear, it appears as though the wastewaters from these steps are all discharged into the same wastewater treatment system. As indicated above, the solutions and residues resulting from electroless plating operations would not meet the listing criteria, however, at least one of the other manufacturing process steps could be considered electroplating operations, e.g. chemical etching processes. If this is the case, then the sludges resulting from those operations would meet the F006 listing criteria.

In accordance 40 CFR §261.3(a)(2)(iv), commonly referred to as the "mixture rule", any mixture of solid waste with one or more listed hazardous waste which has not been excluded from the regulations is a hazardous waste. Therefore, using the above assumption that all wastewaters are discharged into the same treatment system and that at least one of the other contributing manufacturing process steps could be considered an electroplating operation, and given the applicability of the mixture rule to this situation, all sludges removed from the same treatment system could be considered RCRA hazardous wastes. This is further explained in the attached memo dated September 13, 1999, entitled "Sludges from Wastewater Mixtures", from David Bussard, Director, Hazardous Waste Identification Division in the Office of Solid Waste, and David Nielsen, Director, RCRA Enforcement Division, in the Office of Regulatory Enforcement. In that memo, EPA states that the hazardous waste listings are intended to cover sludges resulting from mixtures of wastewaters from multiple processes.

Mr. Robert W. Curry  
February 3, 2000  
Page 3 of 3

In summary, it could be concluded that the sludges resulting from your clients wastewater treatment operations do meet the criteria of an F006 waste. However, as indicated above this assumption is based upon the information you have submitted. A further clarification of your clients operations, including more specific engineering diagrams of the facility operations, including descriptions of process unit operations, material inputs, and chemical transformations, would be necessary in order to make a more accurate assessment of the wastes produced.

Should you have any questions regarding the above, please contact Sharon Leitch, of my staff. She may be reached at (617)918-1647.

Sincerely,



Kevin McSweeney, Associate Director of Waste Policy  
Office of Ecosystem Protection

enclosure

cc: Ken Rota, EPA RCRA Technical Unit  
Jeff Fowley, EPA Office of Regional Council  
Steven DeGabriele, MADEP Bureau of Waste Prevention  
Jim Miller, MADEP Bureau of Waste Prevention  
Stacy Ladner, MEDEP  
John Duclos, NHDES  
Peter Marshall, VTDEC  
Leo Hellested, RIDEM  
Dave Sattler, CTDEP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

CAEN 9/10/99

SEP 8 1999

OFFICE OF  
ENFORCEMENT AND  
COMPLIANCE ASSURANCE

**MEMORANDUM**

Subject: Sludges from Wastewater Mixtures

From: David Bussard, Director *David K. Bussard*  
Hazardous Waste Identification Division, Office of Solid Waste

David Nielsen, Director *David Nielsen*  
RCRA Enforcement Division, Office of Regulatory Enforcement

To: Robert Springer, Director  
Waste, Pesticides, and Toxics Division, Region V

Recently, regional staff contacted our offices and asked for an agency interpretation of the regulatory status of wastewater treatment sludges that result from the mixture of wastewater that is a precursor to a RCRA hazardous waste sludge with wastewater that is not a precursor to a RCRA hazardous waste sludge. This memorandum provides further clarification of the status of sludges from wastewater mixtures and the effect of the 1994 opinion of the Seventh Circuit in *United States v. Bethlehem Steel Corp.*, 38 F.3d 862, on this issue. This memorandum covers not only the F006 listing at issue in the *Bethlehem Steel* case, but also F012, F019, K001-007, K151, K106, K032, K035, K037, K040, K041, K044, K046, K066, and K084.

It has always been EPA's interpretation that sludges from wastewater mixtures of the type described above are covered by the listing description. When promulgating the wastewater treatment sludge listings, EPA contemplated that the listings applied to sludges that result from mixtures of precursor wastewaters. For example, the F006 listing covers "wastewater treatment sludges from electroplating operations;" the listing is not modified in any way to suggest that it does not apply to sludges derived from combined wastewater streams. In fact, the F006 Listing Background Document describes a variety of sequential electroplating operations that generate rinsewaters/wastewaters. Some, but not all, of these rinsewaters/wastewaters are precursor wastestreams. Facilities with multiple operations routinely mix their wastewaters prior to treatment, and the Agency intended the listings to cover sludges from these mixtures of wastewaters.

The U.S. Court of Appeals for the Seventh Circuit rejected this interpretation in *Bethlehem Steel*. In this case, the court held that the F006 listing did not apply to sludges from combined wastewater streams. The court based its conclusion in part on the fact that "when the EPA intends to include waste mixtures in its listings, it knows how to do so," referring to EPA's amendment of the F001-F005 spent solvent listings to include solvent mixtures. 38 F.3d at 868.

The Agency previously discussed this Court decision in a November 1994 memorandum to the Regions.<sup>1</sup> As indicated in the November 1994 memorandum issued by OECA and OGC, we believe the Seventh Circuit incorrectly interpreted the F006 listing. But the decision is binding only on district courts in the Seventh Circuit; EPA's interpretation that mixed sludges are covered by the listing remains viable outside the Seventh Circuit. In the Seventh Circuit, we rely solely on the mixture rule in finding that sludges from combined wastewaters are also RCRA hazardous wastes under the federal RCRA program.

Sludges from mixed wastewaters are RCRA hazardous wastes under the mixture rule (40 CFR 261.3(a)(2)(iv)), regardless of the Seventh Circuit's interpretation of the scope of the F006 listing. As indicated above, the ruling in *Bethlehem Steel* held that, if F006 precursor wastewater from electroplating operations is mixed or combined with other wastewater prior to sludge formation, the resulting mixture is not classified as F006 waste. However, the mixture rule was not in effect at the time of that decision. Implicit in the court's decision in *Bethlehem Steel* is the conclusion that if the mixture rule had been in effect at the time of the decision, it would have applied to the treatment sludges from the combined wastewaters. The court specifically stated, "We conclude that the F006 listing does not, *independent of the mixture rule*, include Bethlehem's mixed wastewater treatment sludges." [emphasis added] 38 F.3d at 869. The sludge that is generated from the combined wastewaters is a mixture of a listed hazardous waste and a solid waste.

Because the mixture rule was not then in effect, it did not result in *Bethlehem Steel*'s sludges being RCRA-listed wastes. *Bethlehem Steel*'s sludges had been generated and managed during the period the mixture rule had been vacated under *Shell Oil Co. v. EPA*, 950 F.2d 741 (D.C. Cir. 1991). However, the mixture rule was reinstated in March 1992 (57 Fed. Reg. 7628), and thus it would apply to sludge from mixed wastewater generated and managed subsequent to the rule's reinstatement. Mixed sludges generated prior to the March 1992 reinstatement of the mixture rule are still regulated if they have been actively managed since.

It should be noted that only mixed treatment sludges that are separated and removed from the wastewater treatment plant/system are actually covered by the listings, but not the commingled wastewaters themselves. This is reflected in the Office of Solid Waste (OSW) interpretive letters. That is, OSW has clarified that electroplating rinsewaters are not specifically

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<sup>1</sup> Memorandum to Regional Counsel and Waste Management Division Directors from Susan E. O'Keefe, Director, RCRA Enforcement Division, and Lisa K. Friedman, Associate General Counsel, Solid Waste and Emergency Response Division, November 21, 1994 (attached).

listed under 40 CFR 261 Subpart D; once the wastewater treatment sludge precipitates, it meets the listing description of F006 (with the exception of precipitates from rinsewaters from certain excluded electroplating processes). The wastewaters discharged from the treatment plant are nevertheless subject to regulation under the Clean Water Act.

This interpretation of the federal RCRA program should be communicated to the states and to the affected regulated community. We will work with you to more widely disseminate this interpretation to the regulated community. If you have any questions regarding this matter, please call Chichang Chen of OSW at (703) 308-0441 or Mary Andrews of ORE-RED at (202) 564-4011.

cc: Regional Counsel, Regions I - X  
Waste Management Division Directors, Regions I - X  
RCRA Enforcement Managers, Regions I - X



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

133

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

February 3, 2000

Owen E. Boyd, President  
SolmeteX  
29 Cook Street  
Billerica, MA 01821

Re: Second Request for Concurrence of MADEP Exemption

Dear Mr. Boyd:

This letter is in response to your correspondence dated November 4, 1999 in which you submitted additional information to support your request for EPA's concurrence of an exemption granted to your company by MADEP in a letter dated July 7, 1999. We regret to say, however, that as indicated in our previous response to you of September 14, 1999, what you have submitted to us does not contain adequate information in order for us to provide you with any assessment of the applicability of the federal hazardous waste exemptions to your treatment system.

The Hazardous Waste Program of the EPA-New England Office has a formal procedure in place for dealing with requests for what are referred to as "regulatory interpretations". Many of the requests that we receive are for clarifications of various hazardous waste regulations and for determining the applicability of those regulations to various operating scenarios. In order to generate a complete response to these requests EPA must have all of the necessary information. In order to facilitate this process for you we have explained below a summary of the hazardous waste regulations which we believe could be the basis of a request from you.

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Nova's perspective, the benefits of demonstrating environmental success by way of the Environmental Indicator checklist would include the reflection of such achievement on EPA's national database and internet web site. This checklist originally was developed for agency use, so parts of it may seem confusing or inapplicable to you. Please contact Raphael Cody at (617) 918-1366 if you need assistance filling out the checklist.

We thank you for your time, the resources you have dedicated so far to cleaning up your facility, and for your cooperation in helping EPA decide how to proceed at your facility. Please call me at (617) 918-1361 or Raphael Cody at (617) 918-1366 with any questions about this letter.

Sincerely,



Matthew R. Hoagland

Chief, RCRA Corrective Action

cc: Mr. Edward Weagle, MADEP  
Gary Gosbee, EPA  
Catherine Smith, EPA  
Raphael Cody, EPA



Sharon Leitch

12/17/02 10:03 AM

To: tmooney@triumvirate.com

cc: Gary Gosbee/R1/USEPA/US@EPA, Ken

Rota/R1/USEPA/US@EPA, Marv Rosenstein/R1/USEPA/US@EPA,

Jeff Fowley/R1/USEPA/US@EPA, Steve Yee/R1/USEPA/US@EPA,

Juiyu Hsieh/R1/USEPA/US@EPA, (bcc: Sharon

Leitch/R1/USEPA/US)

Subject: (287135631) Region1 WWW Feedback

Dear Tim, this is a response to your e-mail question, listed below, regarding the status of your client's beryllium waste.

The listing for a P-waste specifically states that these types of wastes are any discarded commercial chemical product, any off-specification commercial chemical product, any residue remaining in a container that held any commercial chemical product, and any spill residues thereof. The P015 listing is for beryllium powder and applies to an unused commercial chemical product, that being the beryllium dust or powder. Unless the process by which your client has created this dust is a process where the intent is to produce a commercial chemical product (i.e. beryllium dust), the dust created would not be considered a hazardous waste due to the listing. However, the waste may be hazardous due to a characteristic and it is the responsibility of the generator of the waste to make this determination.

Please note that all of the New England States are authorized to administer and enforce the base RCRA program in lieu of the federal program and, in particular, have the regulatory authority regarding hazardous waste determinations. Therefore, you should consult with the appropriate State authority regarding your question.

Please do not hesitate to contact me if you have any questions regarding this response or require any further assistance.

Sincerely,

Sharon Leitch  
Hazardous Waste Unit  
EPA Region 1  
(617)918-1647  
leitch.sharon@epa.gov

\*\*\*\*\*  
\*\*\*\*\*

comments

I have a question about wheher or not the P015 applies to this waste stream. One of our clients machines beryllium stock. They either start from a piece of cold stock or in alot of cases they are re-machining an existing fixture. For size I am talking about pieces that fit in your hand or in some cases both hands. Small but machined to very specific tolerances. They have a vacuume hose right at the point of machining so they try to capture these minute particles. These particles then travel up a pipe to the baghouse where they are seperated in the hanging bags. Large particles drop to the bottom of the baghouse into a "dirtcan" and the smaller are trapped in the bags. Any that may escape are trapped in the HEPA filter downstream prior to discharge. We are dismanteling this entire process and disposing it for them. Would the "dirtcan" or the baghouse filters be p-listed for beryllium?

Please e-mail me your thoughts.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

November 13, 2002

Yan Li, PE, Senior Engineer  
Rhode Island Department of Environmental Management (RIDEM)  
Office of Waste Management  
235 Promenade Street  
Providence, RI 02908-5767

Dear Ms. Li:

EPA New England Hazardous Waste Program Unit received your letter dated September 23, 2002 asking our assistance regarding RIDEM's regulatory authority over rail car operations at a permitted TSDF facility in Rhode Island. Because the nature of the question raised legal issues, Jeffry Fowley of our Office of Regional Counsel has provided the response in the attached memorandum.

If you have any questions, please contact Jeffry Fowley directly at 617-918-1094. Alternately, you may contact Jui-Yu Hsieh of Hazardous Waste Program Unit at 617-918-1646.

Sincerely,

A handwritten signature in black ink, appearing to read "Marvin Rosenstein".

Marvin Rosenstein, Chief  
Chemical Management Branch  
Office of Ecosystem Protection

Attachment:

cc: Gary Gosbee, EPA, OEP  
Jeffry Fowley, EPA, ORC  
Ken Rota, EPA, OES  
Laurie Grandchamp, RIDEM  
Stacy Ladner, MEDEP  
Peter Marshall, VTDEC  
Jim Miller, MADEP  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
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**Memorandum**

**Date:** November 7, 2002

**Subj:** Regulation of Hazardous Waste Stored in Rail-Car

**From:** Jeffry Fowley, Office of Regional Counsel

**To:** Gary Gosbee, Chief, Hazardous Waste Management Unit

On September 23, 2002, the Rhode Island Department of Environmental Management ("DEM") requested a regulatory interpretation from EPA Region I regarding whether hazardous waste stored in a rail-car at the Chem-Pak facility would be subject to State regulations or whether the State regulations would be preempted by the Hazardous Materials Transportation Act, 49 U.S.C. §§ 5101 et seq. ("HMTA"), administered by the U.S. Department of Transportation ("DOT"). Since the DEM's request raised legal issues, it was assigned to me for response.

The DEM is in the process of reissuing a hazardous waste treatment and storage permit to the Chem-Pak facility. In the permit application, the facility has proposed to load blended waste and oils into a rail-car which will be located on a track at the facility. The permit application states that the loading will be done by Chem-Pak employees and that after the completion of loading, the railroad will be notified to pick up the rail car.

The DEM would like to regulate the rail-car as a storage unit while it is located within the boundaries of the Chem-Pak facility. In particular, the DEM would like to require that there be secondary containment around the rail-car. However, in the permit application, Chem-Pak has indicated that it is proposing to follow only DOT regulations while loading and storing hazardous wastes in the rail-car.

In the circumstances presented, it seems clear that the DEM may regulate the rail-car as a storage unit, including by requiring secondary containment. The State regulations are not preempted while the rail-car is being used for on-site storage by Chem-Pak.

Under HMTA, the DOT regulates the transportation of hazardous waste, including loading and storage "incidental to ... movement." 49 U.S.C. § 5102(12). However, the DOT does not regulate storage at fixed facilities which is not "incidental to movement."

Finally, I note that the DOT has a procedure whereby States may seek formal interpretations regarding whether regulations are preempted. See 49 C.F.R. §§ 107.203 et seq. Based on my research, however, seeking such a formal interpretation seems unnecessary, since the lack of preemption seems clear.



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

September 23, 2002

Jui-Yu Hsieh  
EPA Region I, CHW  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

Dear Ms. Hsieh

I am writing this letter asking for your assistance regarding our regulatory authority over rail car operations at permitted TSDF's. The facility in question (Chem-Pak) is a permitted TSDFs in Rhode Island. In their permit application, Chem-Pak proposed to use the rail car to transport their blended waste and oils to authorized off-site facilities.

It is our desire to regulate the rail car as a storage unit that must meet RIDEM and EPA requirements while it is located within the boundaries of the facility, especially with regard to secondary containment. Our concern is that if the rail car complies with DOT requirements, both RIDEM and EPA regulations may be subject to preemption as per : **49CFR107.202**. We feel a pivotal issue in the determination of regulatory authority will be whether the waste in the rail car is considered to be waste in transit as per 49 U.S.C. 5102(12) as interpreted by USDOT Research and Special Programs Administration and if the requirements in question would be a covered subject of DOT requirements and therefore subject to additional preemption provisions HMTA as amended in 1990.

Your guidance for this matter is greatly appreciated. Thank you very much for your assistance.

Sincerely yours,

Yan Li, PE, Senior Engineer  
Rhode Island Department of Environmental Management  
Office of Waste Management

Cc: Laurie, Grandchamp, RIDEM/OWM  
Ken Rota, EPA, Region I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1  
1 Congress Street, Suite 1100  
BOSTON, MA 02114-2023

August 1, 2002

Patricia H. Duft  
Staff Vice President, Legal Dept.  
Mallinckrodt, Inc.  
675 McDonnell Blvd.  
St. Louis, MO 63134

Re: Regulatory Interpretation Regarding Mercury From the HoltraChem Manufacturing Company Facility in Orrington, Maine

Dear Ms. Duft:

This is in response to your request for a regulatory interpretation dated May 10, 2002 regarding mercury from the HoltraChem Manufacturing Company facility in Orrington, Maine.

**SUMMARY OF REQUEST**

You report that there is approximately 84 tons of free-flowing elemental mercury currently being stored in Orrington. The mercury previously was used in mercury cells at the HoltraChem chlor-alkali facility during the production process to manufacture chlorine. For economic reasons, the HoltraChem Manufacturing Company ceased operations at the Orrington facility in September 2000, and the mercury has been stored on site since that time.

According to your letter and a materials Profile submitted with your letter, the mercury is more than 99% pure. Subsequent to your letter, this purity level has been confirmed by having a sample of the mercury analyzed by an independent laboratory, showing a purity level of 99.994%. You note that in the chlor-alkali facility process, the mercury did not chemically react with any of the other materials. It thus did not become contaminated with other materials, and also was not used up or depleted. But for the closure of the plant, it could have continued to be used, as is, in the manufacturing process.

As a prior site owner, Mallinckrodt, Inc. currently is carrying out certain RCRA corrective action remediation activities at the HoltraChem facility. The continued storage of the mercury on site is impeding Mallinckrodt's ability to continue these activities.

The mercury has been offered for sale to Mercury Waste Solutions, Inc. ("MWS"). MWS is in the business of reselling mercury in commerce. You report, however, that pursuant to

Agreements planned to be signed by MWS and the Natural Resources Council of Maine ("NRCM"), the mercury temporarily will be stored at MWS's facility in Union Grove, Wisconsin rather than immediately being resold as a product. According to drafts of the Agreements submitted to the EPA on August 1, 2002, the mercury will be stored for at least four years. At the end of the four-year period, MWS and NRCM may continue the storage on an annual basis, not to exceed a total storage period of eight years. At the request of the NRCM, MWS has agreed that if during the period of storage, there is a change in current law, regulations and/or policy, and a mercury retirement policy is established, MWS will sell the mercury to the United States government or another entity in accordance with the retirement policy. However, MWS has reserved the right to sell the mercury in commerce at the end of the first four year storage period, if MWS determines that it could be adversely impacted by major changes in cost structure or regulations by continuing to store the mercury. In any event, unless there is a change in law, regulations and/or policy, MWS has the right, and intends, to sell the mercury in commerce by no later than the end of the eight year storage period. The mercury does not need to be reclaimed by MWS prior to reselling it as a product since it is already greater than 99% purity. MWS has no plans to refine the mercury to further increase the purity, at this time.

You request a regulatory interpretation as to whether the mercury may be handled as a product, rather than as a hazardous waste under the federal regulations promulgated pursuant to the Resource Conservation and Recovery Act ("RCRA"). Although you believe that the mercury is a product, you note that MWS is a licensed hazardous waste storage facility, and has agreed to store the mercury in accordance with safe handling requirements. According to the draft Agreements submitted to the EPA, the mercury will be stored in containers which will be inspected daily to ensure their integrity, inspected weekly with full documentation, and monitored by mercury vapor analyzers to ensure proper containment. You further note that the mercury will be transported from Maine to Wisconsin by a licensed hazardous waste transporter.

## RESPONSE

Maine and Wisconsin both have been authorized by the EPA to administer State hazardous waste programs. Thus whether the mercury is a product or hazardous waste must be determined in accordance with Maine law which applies until the mercury leaves Maine and in accordance with Wisconsin law which will apply once the mercury reaches Wisconsin. However, the EPA is responding to your regulatory interpretation request in order to provide you with guidance regarding the federal hazardous waste regulations, since the federal regulations set the requirements which all States must follow at a minimum.

EPA Region I is responding to your request because whether a material is a hazardous waste must initially be determined by the generator where the material is generated, and the mercury has been generated in this Region. However, since the plan is to ship the mercury to a facility within EPA Region V, we have consulted with that EPA Region and with the Office of Solid Waste at EPA Headquarters prior to sending you this response.

In response to your request, we agree, first, that mercury which is at least 99% pure is of product quality. The EPA consistently has stated that 99% pure mercury is of product quality because

it is reusable as is, or requires only further refining (e.g., to 99.99% purity), rather than more substantial reclamation, to be reusable. See Letter from Matthew A. Straus, EPA Office of Solid Waste, to D.F. Goldsmith Chemical and Metal Corp. dated January 21, 1986; Letter from Matthew A. Straus, EPA Office of Solid Waste, to Bethlehem Apparatus Company, Inc., dated May 30, 1986; Letter from David Bussard, EPA Office of Solid Waste, to Appropriate Technologies, II, Inc., dated March 19, 1991. Thus the HoltraChem mercury appears to be of product quality.

Although the HoltraChem mercury was used in an industrial process, we agree that it has retained its status as a commercial chemical product rather than becoming a spent material. Under the federal regulations, a spent material is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." 40 C.F.R. § 261.1(c)(1). While the HoltraChem mercury has been used, neither contamination with impurities nor any other factor or circumstance has caused this mercury to become unsuitable for commercial purposes or to need reprocessing. Thus the mercury has not become "spent."

As a commercial chemical product, the HoltraChem mercury is not subject to regulation as a hazardous waste under the federal regulations so long as it is not "discarded." Commercial chemical products being stored for the purpose of disposal are considered to have been "discarded" and thus are subject to regulation. See 40 C.F.R. § 261.2(b)(3). However, commercial chemical products being stored in order to be recycled as products are not considered to have been "discarded," unless they are burned for energy recovery or used in a manner constituting disposal. See *id.* § 261.2(c). See also 40 C.F.R. § 261.33.

Whether the HoltraChem mercury when shipped to MWS will become "discarded" depends upon the particular arrangement made with MWS. Based on your representations regarding the terms of agreement, and our review of the draft Agreements, it appears that the mercury will retain its product status under the federal regulations when being stored by MWS, unless and until a determination is made that the mercury will be "retired."

The key element of the arrangement (as represented by you and reflected in the draft Agreements), that will give this mercury continued product status, is that MWS has the right, and intends, to sell the mercury for commercial purposes at the end of the storage period, unless there is a law, regulatory and/or policy change. That the mercury might be retired if there is a law, regulatory and/or policy change simply means that the mercury may become "discarded" at a future point; it does not make the mercury a hazardous waste at this point. That the mercury may be stored for as long as eight years prior to being resold also does not remove its product status, in the particular circumstances of this case. In other circumstances, the EPA might question the legitimacy of a claim that commercial chemical products being stored long term without being sold are products. In this case, however, there is a commercial market for mercury such that the HoltraChem mercury could be immediately resold. It will be stored only in response to the concerns of environmental organizations, in order to help promote an environmental purpose. We do not think that RCRA should be interpreted to impose greater regulation on a company which plans to sell a product (absent a law, regulatory and/or policy change) after promoting an

environmental purpose than would be imposed in the absence of carrying out the environmental purpose.

In answering your inquiry, we have assumed that the HoltraChem mercury is a secondary "material" potentially subject to regulation under RCRA, since the mercury was used in an industrial process. However, so long as it is recycled back into commerce or stored in order to be recycled back into commerce, the mercury (even if a secondary material) will remain classified under the federal regulations as a non-regulated product. See 40 C.F.R. § 261.2(c). So long as the mercury retains its product status, it will not be subject to any RCRA regulatory requirements under the federal regulations. In particular, the limitations on storage time set by RCRA section 3004(j), 42 U.S.C. § 6924(j), and 40 C.F.R. § 268.50 will not apply. The speculative accumulation provisions in 40 C.F.R. § 261.2 also will not apply, since commercial chemical products are not subject to these speculative accumulation requirements. See id., Table 1.

We recognize that the Maine Department of Environmental Protection has determined that the HoltraChem mercury is a hazardous waste under Maine State law. The State acted pursuant to its authority under RCRA to impose requirements which go beyond the minimum federal hazardous waste requirements. However, Maine's interpretation does not set a precedent for interpreting the federal RCRA regulations. The federal and Maine RCRA regulations are worded quite differently. Maine generally regulates as a waste any substance or material which is "unwanted" by the generator of the material "whether or not such substance or material has any other or future use." Maine Hazardous Waste Management Rules, Chapter 850, section 3A. In contrast, as noted above, under the federal regulations, when a commercial chemical product is unwanted by the generator, it may nevertheless be handled as a product, providing that it is being recycled for another or future commercial use. There thus is no inconsistency between classifying the mercury as a hazardous waste under Maine law and classifying it as a product under the federal regulations.

As a result of the Maine classification, the HoltraChem mercury will need to be handled as a State-only hazardous waste until it leaves the State of Maine. It will need to be shipped to the State of Wisconsin under a hazardous waste manifest using a licensed hazardous waste carrier. As a licensed hazardous waste storage facility, MWS will need to sign on the manifest that it has received this hazardous waste. However, once MWS has received and signed for the mercury, it will then be able, according to the federal regulations, to convert the mercury back to product status.

Our determination that the HoltraChem mercury may be handled as a product is subject to the following important qualifications. First, it is of course based on all of the representations contained in your letter being accurate. Second, as indicated above, the actual determination of whether the mercury will be a product or a hazardous waste when stored in the State of Wisconsin needs to be made in accordance with Wisconsin law. We suggest that Wisconsin State authorities be contacted in advance of any shipment to that State, to obtain their interpretation. As noted above, a State has the right to impose requirements which go beyond the minimum federal hazardous waste requirements. Third, even if State hazardous waste regulatory requirements are determined not to apply to the storage of this mercury in Wisconsin, it is

imperative that the mercury be safely stored. Among other things, poor management of the mercury could suggest that the mercury was not being carefully handled as a valuable product and thus could call into question its classification as a product. For this reason as well as safety reasons, we support the plan to include, in the Agreements with MWS, specifications regarding how the mercury will be stored.

Finally, if and when a decision is made to retire the mercury (including if there is storage for the purpose of retirement), further guidance from the EPA and the relevant State authorities should be sought. As indicated above, under current federal RCRA regulations, mercury being retired or stored for the purpose of retirement would need to be handled as a hazardous waste.

I hope that this answers your questions and that the important task of removing this mercury from the HoltraChem facility now moves forward. Should you have any further questions or concerns, please feel free to contact me at tel: 617-918-1631 or Jeffry Fowley in our Office of Regional Counsel at tel: 617-918-1094.

Sincerely,



Marvin Rosenstein, Chief  
Chemical Management Branch

cc: Robert Dellinger, EPA Office of Solid Waste  
Robert Springer, EPA Region V  
Michael Ellenbecker, Wisconsin DNR  
Scott Whittier, Maine DEP

a minimum, the D001 waste number is likely to apply.

Response:

The Solvent Mixture Rule promulgated at 50 FR 53315, 12/31/85, provides that a mixture containing F003 solvents would retain the listing under the following two conditions: the mixture contains: (1) only F003 constituents, or (2) one or more F003 constituents and 10% or more by volume of one or more of F001, F002, F004 and F005 listed solvents, prior to use.

The F003 listing also covers mixtures of F003 solvents and other substances such as isopropyl alcohol and water if the mixtures are technical grade solvent formulations, which are used for their solvent properties. The term technical grade refers to all grades of a chemical which are marketed or recognized for general usage by the chemical industry. Solvent formulations containing de minimis percentages of manufacturing contaminants or impurities are considered technical grade products, provided that they are available for purchase and use in this form. In other words a technical grade solvent could contain small concentrations of contaminants or manufacturing impurities and still meet the F003 listing after being used for its solvent properties. The purity of a technical grade formulation will vary from compound to compound and may range from highly purified to very impure. EPA has not established specific percentages or other criteria for use in determining when contamination is considered de minimis, such a decision must be made on a case by case basis. (RCRA Online, 6/1/94, Faxback 13675)

In the first scenario, acetone (an F003 solvent) is blended with a constituent (isopropyl alcohol) other than F003 constituents; in the second scenario, acetone is diluted with water. In both cases, the determination as to whether the mixture will retain the F003 listing is dependent upon whether or not the mixture is considered a technical or commercial grade solvent.

EPA New England does not have adequate information at this time to assess what percentage of isopropyl alcohol or water in acetone will qualify acetone mixture as technical or commercial grade. It is recommended that the generator check with manufacturers to determine if acetone which contains 0.7% to 0.9% isopropyl alcohol or 10% to 15% water is considered commercial or technical grade. If it qualifies as commercial or technical grade, once spent, it would still meet the F003 listing. If it is not commercial or technical grade, this reason why the acetone mixture does not meet the F003 listing criteria should be documented, and the mixture should be tested for the characteristic of ignitability.

Please note that the New England States in accordance with Section 3006 of the Resource Conservation and Recovery Act (RCRA), are authorized to administer and enforce the base RCRA program in lieu of federal program and, in particular, have regulatory authority regarding hazardous waste determinations for 40 CFR 261 - Identification and Listing of Hazardous Waste. Therefore, you should also consult with the appropriate state personnel regarding all of your

Ms. Richards

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requests.

I hope the above responses address your concerns. It should be noted that EPA has since published two corrections to the revised mixture and derived-from rule (66 FR 50332 and 66 FR 60153). However, these corrections and extension of the effective date on this rule should not affect today's responses. If you have any further questions, please contact Ms. Jui-Yu Hsieh in my Hazardous Waste Unit at 617-918-1646.

Sincerely,



Marv Rosenstein, Chief  
Chemical Management Branch  
Office of Ecosystem Protection

cc: Gary Gosbee , EPA, OEP  
Jeffry Fowley, EPA, ORC  
Ken Rota, EPA, OES  
Matt Hoagland, EPA, OSRR  
Laurie Grandchamp, RI DEM  
Jim Miller, MA DEP  
Dave Sattler, CT DEP  
Stacy Ladner, ME DEP  
Peter Marshall, VT DEC  
John Duclos, NH DES

June 18, 2001

Ms. Juiyu Hsieh  
US EPA New England, Region 1  
1 Congress Street, Suite 1100 (CHW)  
Boston, Massachusetts 02114-2023

**Re: *Land Disposal Restriction Regulations***  
***One-Time Notification for Exempted Wastes***

Dear Ms. Hsieh:

As we discussed by telephone, I am requesting assistance with an interpretation of the land disposal restriction regulation requirements applicable to generators. My questions are:

1. A generator uses an F003-listed solvent, or a D001 characteristic solvent to spray onto a metal part for cleaning, then wipes the part with a cloth and collects the cloth in a container. The "spent solvent" is hazardous for a few seconds while it is on the part, before it is wiped with the cloth. However, the cloth/solvent mixture no longer exhibits the characteristic of ignitability and therefore, no longer meets the definition of a hazardous waste pursuant to the mixture rule in 40 CFR 261.3. 40 CFR 261.3(g)(3) (in effect on August 14, 2001) states that wastes excluded under this section are subject to part 268 (as applicable) even if they no longer exhibit a characteristic at the point of land disposal. 40 CFR 268.7(a)(7) indicates that a one-time LDR notice to the generator's file is required if the waste is excluded "subsequent to the point of generation."

Would this waste, as described above, be considered to be excluded "subsequent to the point of generation" because it was a hazardous waste (either F003 or D001) for a few seconds prior to wiping with the cloth, or would the point of generation be when the contaminated cloth is generated and placed in a collection container (thus it is never a hazardous waste to begin with)? If this waste is subject to the LDR requirements, which requirements apply? (i.e., the one time notice to the generator's file per 268.7(a)(7), the one-time notice to US EPA pursuant to 268.9(d), the notice to the disposal facility when the waste is shipped offsite pursuant to 268.7(a)(3), and/or the requirement for a waste analysis plan pursuant to 268.7(a)(5)?) Does it make any difference whether the solvent used is an F003-listed solvent or a D001 only solvent? Does it make any difference if the solvent is first applied to the cloth rather than the part being cleaned?

2. Which of the LDR requirements apply to a generator treating a corrosive hazardous waste in an exempt elementary neutralization system, or other hazardous wastes in exempt units such as wastewater treatment units or totally enclosed treatment facilities? (i.e., the one time notice to the generator's file per 268.7(a)(7), the one-time notice to US EPA pursuant to

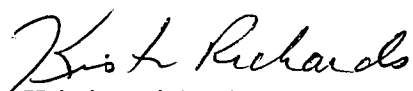


268.9(d), the notice to the disposal facility when the waste is shipped off site pursuant to 268.7(a)(3), and/or the requirement for a waste analysis plan pursuant to 268.7(a)(5)?)

I would appreciate a written response to my questions as soon as possible. If you require any clarification on my questions or would like to discuss them further prior to preparing your written response, please call me at (401) 421-0398, Extension 179. Thank you.

Sincerely,

**ENVIRONMENTAL SCIENCE SERVICES, INC.**

  
Kristina Richards  
Senior Environmental Engineer

June 18, 2001

Mr. Gary Gosbee  
EPA New England, Region 1  
1 Congress Street, Suite 1100 (CHW)  
Boston, Massachusetts 02114-2023

**Re: *Hazardous Waste Identification; F003 Listing Interpretation***

Dear Mr. Gosbee:


I am requesting assistance with an interpretation of the F003 hazardous waste listing in 40 CFR 261.31. My questions are:

If an F003-listed solvent, in this case, acetone, is to be used at a generator's facility for cleaning purposes; however, prior to use, the acetone is blended with 0.7% to 0.9% isopropyl alcohol, does the spent solvent meet the F003 listing? Because the solvent being used is not pure acetone, it seems that this waste would not meet the F003 definition. What if the acetone were mixed with 10% to 15% water prior to use rather than isopropyl alcohol? Again, it seems that the spent solvent would not meet the F003 listing in this scenario. I understand that in both cases, the characteristics of the waste need to be determined and that, at a minimum, the D001 waste number is likely to apply.

I would appreciate a written response to my questions as soon as possible. Thank you.

Sincerely,

**ENVIRONMENTAL SCIENCE SERVICES, INC.**

  
Kristina Richards  
Senior Environmental Engineer



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Faxback 11900

9441.1995(10)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20469

March 8, 1995

Mr. Christian M. Richter  
Washington Representative  
American Foundrymen's Society  
900 2nd St. N.E. Suite 109  
Washington D.C. 20002

Dear Mr. Richter:

I am writing in response to your letter to me of October 31, 1994, and as a follow-up to the November 1994 and February 28, 1995 meetings between representatives for the American Foundrymen's Society (AFS) and the U.S. Environmental Protection Agency (EPA) on the regulatory status of spent foundry sand under the Resource Conservation and Recovery Act (RCRA). Thank you for reviewing with us the use and role of sands in the foundry process and reiterating the industry's concerns.

The two RCRA regulatory concerns at issue which you have raised are: 1) whether spent foundry sands are solid and hazardous wastes within the sand loop and at what point do they become wastes, and 2) what is the regulatory status under RCRA of the type of thermal reclamation units discussed at our meeting, which are used to remove clay and resin binders from spent sands prior to reuse in mold making. The opinions expressed below are based on your general factual description and thus necessarily represent our initial conclusions, not final agency action. In addition, nothing in this letter should be considered to compromise, or to address the merits of any enforcement actions.

With regard to the first issue, for reasons stated below, EPA believes that spent foundry sands are solid wastes at the point at which the mold is broken and the sand is separated from the casting at the shakeout table. These solid wastes are also hazardous wastes if they exhibit the characteristic of toxicity for lead or other hazardous constituents specified at 40 CFR 261.24. Moreover, the process of separating bits and pieces of metal, fines, core sand butts and other clumps of mold sand at the shakeout table and screen to create return sand (for reuse in the

conveyors and screens.

Sand (hereafter referred to as return sand) which passes through the drum and screens is returned to the moldmaking process to be used to make new molds. The entire process of making sand molds and reclaiming return sand for producing new molds is referred to as the sand loop.

Some chunks of sand from the broken molds and cores cannot be broken down and are too large to fit through the drum/screening process. This sand together with bits and chunks of metal (referred to as tramp metal), is removed from the screening process and sent to a ball mill where the mixture is milled and remaining metal is removed for reinsertion into the casting process or sold for recycling. Iron may be added to the clumps of sand prior to or during the milling process in an attempt to fix lead in the sand. The milled sand is then sent to a municipal or on-site industrial landfill.

## B. Overview of Spent Foundry Sand Management

As you mention in your incoming letter to EPA, AFS estimates that 100 million tons of sand used to make molds in the ferrous and non-ferrous foundry industry and that approximately 94 percent of these sands are reused within the industry. In an April 26, 1993 article of American Metals Market, AFS is quoted as estimating that only about 4 percent, or 240,000 tons of the estimated 6 million tons of discarded foundry sand are hazardous waste. The article indicates that this is particularly a problem with manufacturers of leaded brass. However, Dan Twarog, AFS Director of Research, indicated in this article that contamination of foundry sands "is not a huge problem".

Based on data submitted to EPA by brass foundries, most spent foundry sands which are hazardous wastes are classified as such because they exhibit the characteristic of toxicity for lead, D008. In addition, one brass foundry exporting its sands for use in Canada reported that the sand exhibited the characteristic of toxicity for cadmium, D006.

## 2. RCRA Subtitle C Regulatory Status of Spent Foundry Sands and Thermal Reclamation Unit

As stated above, AFS has raised two particular issues for EPA's consideration: 1) is spent foundry sand a solid waste and when is it generated, and 2) what is the regulatory status of thermal reclamation units for spent foundry sand. Each of these issues is discussed in turn.

(exempting actual recycling processes from regulation unless otherwise specified).

However, with respect to the portion of foundry sands that is removed from the reclamation process and is not beneficially reused, foundries remain subject to all applicable RCRA standards for managing these materials under 40 CFR Part 262. These standards include manifesting and standards for storage in tanks, containers, drip pads and containment buildings, as set out in Section 262.34. In addition transporters of these hazardous wastes are subject to 40 CFR Part 263. Furthermore, foundries that treat these hazardous wastes in conformance with these less-than-90 day storage provisions would not be subject to RCRA permitting requirements. Our expectation is that operating foundries should be able to operate in ways such that they do not trigger requirements for RCRA permits pursuant to the Federal regulations.

EPA's views about the point of generation for jurisdiction purposes do not imply that we believe that the non-thermal reclamation process of screening and separating sand following the separation of the casting requires a RCRA Subtitle C permit. When this screening and separation of sand is part of a reclamation process, it is exempt from RCRA Subtitle C regulation. 40 CFR 261.6(c)(1). Nor does this opinion imply any belief on the part of the Agency that state regulation under Subtitle D of RCRA is warranted for nonhazardous foundry sands undergoing reclamation. The scope of our regulatory concern is limited to foundry sands which are considered characteristically hazardous under Subtitle C of RCRA.

Notwithstanding these points, EPA cannot agree that the point of generation occurs after the sand mold is separated from the casting. The AFS interpretation, that foundry sands are generated after processing at the shakeout table, would have two adverse effects that are potentially damaging to human health and the environment.

First, some foundries would be able to add iron to spent foundry sands which are destined for land disposal (including both clumps of sand molds and sand cores as well as sand fines that are collected from emissions from the shakeout table) and argue that the spent sands were solid wastes, but never hazardous waste. This argument would be based on the assumption that they were "generated" after the addition of iron, possibly masking the toxicity characteristic for lead. It would follow that these foundries would not be subject to standards required for hazardous waste generators treating characteristic wastes in tanks, notwithstanding that they are engaged in a classic treatment activity. Moreover, these iron-treated sands would not be subject

occurs in the fluidized bed. As a result, the organic resins, binders and solvents are destroyed.

Under the Agency's regulatory regime, thermal treatment devices are classified as either boilers, industrial furnaces, incinerators, other interim status thermal treatment units, or miscellaneous permitted treatment units. Definitions of a boiler, industrial furnace, and incinerator are provided in 40 CFR 260.10. If a thermal treatment device does not meet the definition of boiler or industrial furnace, it is classified as an incinerator if it uses controlled flame combustion; if it does not, it is either an interim status thermal treatment unit (Part 265 Subpart P) or a miscellaneous permitted treatment unit (Part 264 Subpart X).

The thermal sand reconditioning device you presented to us is not a boiler because it does not recover and export energy. It does not meet the definition of an industrial furnace because it is not one of the enumerated devices listed as an industrial furnace in Section 260.10. Thus, our analysis focuses on whether the device should be regarded as either an incinerator or a miscellaneous/other treatment unit.

Given that the device uses controlled flame combustion to burn natural gas and that the combustion gases are exhausted into the combustion chamber containing the spent sand, the device should be classified as an incinerator. Among other considerations, although not dispositive in themselves, are: (1) the temperature in the combustion chamber would be carefully controlled to what is claimed to be the optimum combustion temperature of the resin contaminants; and (2) the temperature would be controlled by modulating the natural gas burner in the firebox, or, in some designs, burners in the combustion chamber itself.

AFS has maintained that because, in its opinion, sand which is part of the sand loop is not discarded and therefore not a solid waste, that spent foundry sand which is destined for a thermal reconditioning unit is also not a solid waste. For this reason, AFS maintains that thermal recondition units of the type described in our November 16 meeting are not incinerators, but rather part of a manufacturing process used to recondition sand for reuse within the mold making process.

For the reasons stated above, the AFS argument that spent foundry sand is not a solid waste does not appear to be sound. To reiterate, the sand from the broken mold is not fit for its original use as a mold without substantial reprocessing. If the sand is reprocessed through thermal reconditioning rather than or

foundries, the used sand mixtures contain sufficient hazardous constituents (e.g., lead, cadmium, toxic organic compounds) to pose a threat to human health and the environment if managed improperly. EPA has three major environmental concerns regarding management of spent foundry sand: 1) landfill disposal of spent foundry sand, including treatment with iron prior to land disposal, 2) thermal processing of spent foundry sand, and 3) the storage and actual management practices for spent foundry sands prior to disposal.

#### A. Landfill Disposal of Spent Foundry Sands; Treatment of Lead-Contaminated Sand With Iron Filings

As discussed in our meeting and indicated in prior correspondence on behalf of AFS member companies, some portion of spent sand is continuously removed from the sand loop in some foundries and disposed of in landfills. For those foundries whose sand contains hazardous constituents, such as lead, cadmium and organics, the Agency has a strong interest in seeing that these sands are properly managed. Left untreated, lead-contaminated sands may result in releases to groundwater, possibly threatening nearby drinking water wells. Improper disposal of untreated hazardous waste has historically led to many landfills becoming Superfund sites. Thus, when foundry sands exhibiting the hazardous characteristic for lead are land disposed, these materials must be properly treated and disposed of in appropriate facilities in order to prevent the creation of future hazardous waste remediation sites.

Effective treatment for hazardous waste being land disposed must assure the long-term immobilization of hazardous constituents to minimize potential short and long term threats to human health and the environment. RCRA Section 3004(m). We understand that some foundries attempt to treat their hazardous waste foundry sand with iron filings prior to land disposal, in an effort to reduce the leachability of the hazardous constituents (typically lead) so that the waste can be land disposed. EPA is concerned, however, that the addition of iron filings to lead-contaminated foundry sands is ineffective as a long-term treatment method and that it could constitute impermissible dilution under 40 CFR 268.3.

In developing the Land Disposal Restriction program in the Hazardous and Solid Waste Amendments of 1984 (HSWA), Congress stated that only dilution that occurs during the normal manufacturing process may be taken into account in setting section 3004(m) treatment standards. Senate Report No. 284. 98th Cong. 1st Sess. at 17. Since the addition of iron occurs only to stabilize lead in the spent sand prior to disposal, it does not appear to be part of a normal production process.

Michael Petruska of my staff at (202) 260 8551. If you have any questions about the status of thermal reclamation units under RCRA as incinerators, please contact Robert Holloway of my staff at (703) 308-8461. Again, we appreciate your patience in arranging for the meeting and your coming to Washington to discuss the issue with us.

Sincerely,

Michael Shapiro, Director  
Office of Solid Waste

Enclosure

-----  
Attachment  
-----

American Foundrymen's Society Inc.  
900 2nd Street, N.E.  
Suite 109  
Washington, D.C. 20002

October 31, 1994

Michael Shapiro, Director  
Office of Solid Waste, M2101  
USEPA Waterside Mall  
401 M Street S.W.  
Washington, D.C. 20410

Dear Mr. Shapiro:

Representatives of the American Foundrymen's Society (AFS) would like to meet with you and David Bussard to discuss several critical policy issues raised by recent Region 6 enforcement actions against foundries. We are concerned that Region 6 has seriously misapplied current USEPA regulatory policy regarding solid waste and recycling under the Resource Conservation and Recovery Act (RCRA).

## I. BACKGROUND

EPA Region 6 officials have targeted two brass and bronze foundries for enforcement action under RCRA. Region 6 contends that one of the industry's primary raw materials -- sand -- when reused in an ongoing production process on-site, is a solid waste. It is our understanding that the set of facts in each of these cases is unique.

However, the two cases raise important questions regarding the

Sincerely,

Christian M. Richter  
AFS Washington Representative

cc: David Bussard, EPA Characterization and Assessment Division  
Elliot Laws, Asst. Administrator for Solid Waste and Emergency Response  
Leon Hampton, EPA Office of Small and Disadvantaged Business  
Utilization  
Karen Brown, EPA Small Business Ombudsman  
Mike Stahl, EPA Office of Enforcement

Faxback 11426

9441.1989(19)

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

APR 26 1989

MEMORANDUM

SUBJECT: F006 Recycling

FROM: Sylvia K. Lowrance, Director  
Office of Solid Waste (OS-300)

TO: Hazardous Waste Management Division Directors  
Regions I-X

It has come to the attention of EPA Headquarters that many of the Regions and authorized States are being requested to make determinations on the regulatory status of various recycling schemes for F006 electroplating sludges. In particular, companies have claimed that F006 waste is being recycled by being used as: (1) an ingredient in the manufacture of aggregate, (2) an ingredient in the manufacture of cement, and (3) feedstock for a metals recovery smelter. The same company may make such requests of more than one Region and/or State. Given the complexities of the regulations governing recycling vs. treatment and the definition of solid waste, and the possible ramifications of determinations made in one Region affecting another Region's determination, it is extremely important that such determinations are consistent and, where possible, coordinated.

Two issues are presented. The first issue is whether these activities are legitimate recycling, or rather just some form of treatment called "recycling" in an attempt to evade regulation. Second, assuming the activity is not sham recycling, the issue is whether the activity is a type of recycling that is subject to regulation under sections 261.2 and 261.6 or is it excluded from our authority.

With respect to the issue of whether the activity is sham recycling, this question involves assessing the intent of the owner or operator by evaluating circumstantial evidence, always

-2-

a difficult task. Basically, the determination rests on whether the secondary material is "commodity-like." The main environmental considerations are (1) whether the secondary material truly has value as a raw material-product (i.e., is it likely to be abandoned or mismanaged prior to reclamation rather

supplemental proposal of the Boiler and Industrial Furnace rule noted above, the Agency will be proposing a definition of "indigenous waste" based on a comparison of the constituents found in the waste to the constituents found in an analogous raw material. Should the F006 waste meet the definition of an "indigenous waste," the waste would cease to be a waste when introduced the process and the slag would not be derived from a hazardous waste.]

Also, you should be aware that OSW is currently reevaluating the regulations concerning recycling activities, in conjunction with finalizing the January 8, 1988 proposal to amend the Definition of Solid Waste. While any major changes may depend on RCRA authorization, we are considering regulatory amendments or changes in regulatory interpretations that will encourage on-site recycling, while ensuring the protection of human health and the environment.

Headquarters is able to serve as a clearinghouse to help coordinate determinations on whether a specific case is "recycling" or "treatment" and will provide additional guidance and information, as requested. Ultimately, however, these determinations are made by the Regions and authorized States. Attached to this memorandum is a list of criteria that should be considered in evaluating the recycling scheme. Should you receive a request for such a determination, or should you have questions regarding the criteria used to evaluate a specific case, please contact Mitch Kidwell, of my staff, at FTS 475-8551.

Attachment

-4-

#### CRITERIA FOR EVALUATING WHETHER A WASTE IS BEING RECYCLED

The difference between recycling and treatment is sometimes difficult to distinguish. In some cases, one is trying to interpret intent from circumstantial evidence showing mixed motivation, always a difficult proposition. The potential for abuse is such that great care must be used when making a determination that a particular recycling activity is to go unregulated (i.e., it is one of those activities which is beyond the scope of our jurisdiction). In certain cases, there may be few clear-cut answers to the question of whether a specific activity is this type of excluded recycling (and, by extension, that a secondary material is not a waste, but rather a raw material or effective substitute); however, the following list of criteria may be useful in focusing the consideration of a specific activity. Here too, there may be no clear-cut answers, but, taken as a whole, the answers to these questions should help draw the distinction between recycling and sham recycling or treatment.

(1) Is the secondary material similar to an analogous raw material or product?

consistent with the raw material/product it replaces?

Is the secondary material stored on the land?

Is the secondary material stored in a similar manner as the analogous raw material (i.e., to prevent loss?)

Are adequate records regarding the recycling transactions kept?

Do the companies involved have a history of mismanagement of hazardous wastes?

(6) Other relevant factors.

What are the economics of the recycling process?

Does most of the revenue come from charging generators for managing their wastes or from the sale of the product?

Are the toxic constituents actually necessary (or of sufficient use) to the product or are they just "along for the ride."

These criteria are drawn from 53 FR at 522 (January 8, 1988); 52 FR at 17013 (May 6, 1987); and 50 FR at 638 (January 4, 1985).



**State of New Hampshire**  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

(603) 271-2900 FAX (603) 271-2456  
May 19, 2000

0002 03 MAY



MAY 30 2000

Mr. Edward K. McSweeney, Associate Director  
Office of Waste Policy  
USEPA Region 1  
1 Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

Dear Mr. McSweeney:

The New Hampshire Department of Environmental Services (NHDES) has received a request for a regulatory determination from a foundry located in New Hampshire. The foundry has a bronze foundry operation that generates spent foundry sand. This foundry sand is hazardous waste for the characteristic of lead at 25 Parts Per Million (PPM) under the Toxicity Characteristic Leaching Procedure. The foundry has proposed delivering this spent foundry sand to Noranda Metallurgy, Inc., Horne Smelter, Rouyn-Noranda, Quebec, Canada (Noranda) as an effective substitute for a commercial product (i.e., silica flux) per 40 CFR 261.2(e)(1)(ii).

The foundry supplied an assay of the spent foundry sand to confirm that Noranda could use this spent foundry sand as a substitute for silica flux. The spent foundry sand is reported to contain 60% silica sand, 32% copper, 2% bentonite clay, 2,000 ppm total lead and 2,500 ppm total zinc. The foundry supplied documentation from Noranda that this material is an effective substitute in their smelting operation as a fluxing agent and would be directly reused without any preparation. The foundry supplied documentation from the Canadian Ministry of the Environment approving this material as a fluxing agent. In addition, the foundry provided documentation that the toxics (lead) contained in the spent foundry sand will be vitrified and unleachable as a result of the smelting process.

Noranda is a primary Copper Smelter, as a primary copper smelter, the copper that is contained in the bronze (32% of the total weight) will be reclaimed. NHDES is requesting EPA's interpretation on the following separate scenarios to clarify the recycling of spent foundry sand issue:

1. The spent foundry sand is sent to a primary copper smelter as an effective substitute for silica flux with reclamation of the copper but no reclamation of the lead. In this scenario would the spent foundry sand be considered a solid waste?
2. As an alternative, the spent foundry sand is sent to a primary lead smelter as an effective substitute for silica flux with reclamation of the lead. In this scenario would the spent foundry sand be considered a solid waste?
3. If the above two scenarios were sent to a secondary smelter, would this change EPA's interpretations?



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

DEC 11 2001

James Jackson, Director  
Department of Safety and Risk Management  
University of Rhode Island  
177 Plains Road  
Kingston, RI 02881-0801

Re: Closure Certification Review  
EPA I.D. No. RID075705780

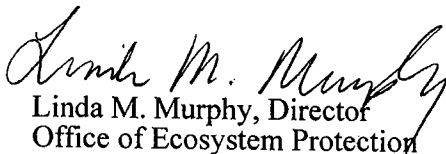
Dear Mr. Jackson:

The United States Environmental Protection Agency-New England (EPA) has reviewed the Closure Certification Report for the University of Rhode Island (URI) Old Dairy Barn dated July 2001 and the URI Old Dairy Barn Closure Documentation Report Addendum dated November 13, 2001, prepared by VHB/Vanasse Hangan Brustlin, Inc. on behalf of the University of Rhode Island. The report covers the closure of the Old Dairy Barn Dry Well located at the University of Rhode Island in South Kingstown, Rhode Island.

The Closure Certification Report is in compliance with the requirements of 40 CFR Part 265, Subpart G and documents that URI has closed its Old Dairy Barn Dry Well in accordance with the approved closure plan dated January 2000 and the Site Characterization Report dated May 2000. In addition, EPA conducted a site visit on June 14, 2001 and confirmed that all closure activities have been implemented. Please note that nothing in this release relieves URI for any liability for releases into the environment heretofore undetected, unknown or not directly related to the operation of the Old Dairy Barn Dry Well.

If you should have any questions, please do not hesitate to contact Stephen Yee of the Hazardous Waste Unit at (617) 918-1197.

Sincerely,

  
Linda M. Murphy, Director  
Office of Ecosystem Protection

Enclosure

cc: Greg Fine, RIDEM, Site Remediation Program, OWM  
Yan Li, RIDEM, OWM  
Tom Angelstone, RIDEM, UIC Program  
Robert Mendoza, EPA  
Gary Gosbee, EPA  
Jim Gaffey, EPA  
Frank Battaglia, EPA  
Timothy O'Connor, Vanasse Hangen Brustlin, Inc.

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I - BOSTON**

December , 2001

Mr. Edward W. Pickering  
Environmental Science Services, Inc.  
272 West Exchange Street, Suite 101,  
Providence, Rhode Island 02903

**Re: Applicability of Household Hazardous Waste Exemption in University Dormitories.**

Dear Mr. Pickering:

Thank you for your letter of June 19, 2001 to Mr. Ken Rota requesting clarification of the applicability of the exemption for household hazardous waste (HHW) in 40 CFR 261.4(b)(1). Specifically, you asked whether this exemption applies to certain wastes generated in dormitories and other housing facilities owned and operated by colleges and universities?

The following are the two scenarios that you described in your letter, and our responses.

1. A student completes homework assignments in his/her private room in a dormitory or other housing facility. Some assignments, such as art and modeling projects, result in generation of spent solvents, paints and other wastes that would meet the definition of listed hazardous waste and/or characteristic hazardous wastes. Are these wastes exempt under the household waste exemption?

Response: In order for a waste to meet the HHW exemption, it has to meet two criteria, the waste must be generated by individuals on the premises of a temporary or permanent residence, and be composed primarily of materials found in the wastes generated by consumers in their homes. (49 FR 44978; November 13, 1984). In general, EPA would consider wastes from student art and modeling homework assignments generated in this manner to be exempt under the household hazardous waste exemption. The exception would be if homework assignments were given for the purpose of avoiding regulation. For example, a university could not claim the HHW exemption for laboratory waste by setting up its laboratory facilities in dormitories.

2. A university provides a workroom within a dormitory or other housing facility for students to complete homework assignments, including art and modeling projects. The workroom is equipped with a sink and collection containers for wastes generated from student projects. The university provides these collection containers as a good management practice to promote proper handling of these wastes. Periodically, these collection containers are brought to one of the university's hazardous waste storage areas. Is the waste collected in the workroom exempt from RCRA regulation under the household waste exemption? Can the university bring this waste to one of its waste storage areas as a generator without being classified as a treatment, storage, and disposal facility (TSDF)?

**CONCURRENCES**

SYMBOL	CHW	SEL	CHW	OPC	CHW	CMR		
SURNAME	Hsieh	Rota KB	9468	Funk	Cooper	Quentin		
DATE	12/7/2001	12/7/01	12/7/01	12/7/01	12/11/01	12/11/01		

Mr. Edward W. Pickering  
Page 2

Response: In general, EPA also would consider wastes from student art and modeling homework assignments generated in this manner to be exempt under the household hazardous waste exemption. Again, the exception would be if homework assignments were given for the purpose of avoiding regulation.

A university will not become a TSDF under the federal regulations simply by bringing exempt HHW from a dormitory to one of its hazardous waste storage areas. Rather, the HHW will become subject to regulation as a newly generated hazardous waste when it is commingled in the hazardous waste storage area with other non-exempt hazardous waste. All of the wastes in such a central storage area should then be stored and ultimately disposed in accordance with all applicable hazardous waste requirements.

Finally, you should consult with each State in which a university is located. Each State may have more stringent requirements, or a more stringent interpretation of the above requirements.

I hope the above responses address your concerns. If you have any further questions on this letter, please contact ~~my~~ Hazardous Waste Unit (Jui-Yu Hsieh at 617-918-1646 or Stephen Yee at 617-918-1197). *in the the other either*

Sincerely,

Marv Rosenstein, Chief  
Chemical Management Branch

*Office of Ecosystem Protection*

cc: Ken Rota, EPA, OES

Gary Gosbee, EPA, OEP

Jeffrey Fowley, EPA, ORC

Laurie Grandchamp, RI DEM

Stacy Ladner, ME DEP

Peter Marshall VT DEC

Bill Sirull MA DEP

John Duclos NH DES

Dave Sattler CT DEP



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

December 11, 2001

Mr. Edward W. Pickering  
Environmental Science Services, Inc.  
272 West Exchange Street, Suite 101,  
Providence, Rhode Island 02903

**Re: Applicability of Household Hazardous Waste Exemption in University Dormitories.**

Dear Mr. Pickering:

Thank you for your letter of June 19, 2001 to Mr. Ken Rota requesting clarification of the applicability of the exemption for household hazardous waste (HHW) in 40 CFR 261.4(b)(1). Specifically, you asked whether this exemption applies to certain wastes generated in dormitories and other housing facilities owned and operated by colleges and universities?

The following are the two scenarios that you described in your letter, and our responses.

1. A student completes homework assignments in his/her private room in a dormitory or other housing facility. Some assignments, such as art and modeling projects, result in generation of spent solvents, paints and other wastes that would meet the definition of listed hazardous waste and/or characteristic hazardous wastes. Are these wastes exempt under the household waste exemption?

Response: In order for a waste to meet the HHW exemption, it has to meet two criteria, the waste must be generated by individuals on the premises of a temporary or permanent residence, and be composed primarily of materials found in the wastes generated by consumers in their homes. (49 FR 44978; November 13, 1984). In general, EPA would consider wastes from student art and modeling homework assignments generated in this manner to be exempt under the household hazardous waste exemption. The exception would be if homework assignments were given for the purpose of avoiding regulation. For example, a university could not claim the HHW exemption for laboratory waste by setting up its laboratory facilities in dormitories.

2. A university provides a workroom within a dormitory or other housing facility for students to complete homework assignments, including art and modeling projects. The workroom is equipped with a sink and collection containers for wastes generated from student projects. The university provides these collection containers as a good management practice to promote proper handling of these wastes. Periodically, these collection containers are brought to one of the university's hazardous waste storage areas. Is the waste collected in the workroom exempt from RCRA regulation under the household waste exemption? Can the university bring this waste to one of its waste storage areas as a generator without being classified as a treatment, storage, and disposal facility (TSDF)?

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Mr. Edward W. Pickering  
Page 2

Response: In general, EPA also would consider wastes from student art and modeling homework assignments generated in this manner to be exempt under the household hazardous waste exemption. Again, the exception would be if homework assignments were given for the purpose of avoiding regulation.

A university will not become a TSDF under the federal regulations simply by bringing exempt HHW from a dormitory to one of its hazardous waste storage areas. Rather, the HHW will become subject to regulation as a newly generated hazardous waste when it is commingled in the hazardous waste storage area with other non-exempt hazardous waste. All of the wastes in such a central storage area should then be stored and ultimately disposed in accordance with all applicable hazardous waste requirements.

Finally, you should consult with each State in which a university is located. Each State may have more stringent requirements, or a more stringent interpretation of the above requirements.

I hope the above responses address your concerns. If you have any further questions on this letter, please contact either Jui-Yu Hsieh or Stephen Yee of the Hazardous Waste Unit at 617-918-1646 or 617-918-1197, respectively.

Sincerely,



Marv Rosenstein, Chief  
Chemical Management Branch  
Office of Ecosystem Protection

cc: Ken Rota, EPA, OES  
Gary Gosbee, EPA, OEP  
Jeffrey Fowley, EPA, ORC  
Laurie Grandchamp, RI DEM  
Stacy Ladner, ME DEP  
Peter Marshall VT DEC  
Bill Sirull MA DEP  
John Duclos NH DES  
Dave Sattler CT DEP

*182*

June 19, 2001

Mr. Ken Rota  
EPA New England, Region 1  
1 Congress Street, Suite 1100 (SER)  
Boston, Massachusetts 02114-2023

**Re: *Household Hazardous Waste***

Dear Mr. Rota:

I am writing to request clarification on the applicability of the exemption for household hazardous wastes in 40 CFR 261.4(b)(1).

Specifically, does this exemption apply to wastes generated in dormitories and other housing facilities owned and operated by colleges and universities? The answer to this question impacts several of our New England clients. Our research to date (gained from RCRA Hotline staff and certain state agencies) indicates that dormitory wastes are generally interpreted to meet the definition of household hazardous waste, and therefore are exempt from the hazardous waste regulations. I would like written confirmation from the EPA of this interpretation to ensure that these wastes are being correctly classified.

I have included specific details of scenarios I have encountered:

- A student completes homework assignments in his/her private room in a dormitory or other housing facility. Some assignments, such as art and modeling projects, result in generation of spent solvents, paints, and other wastes that would meet the definition of listed hazardous waste and/or characteristic hazardous wastes. Are these wastes exempt under the household waste exemption?
- A university provides a workroom within a dormitory or other housing facility for students to complete homework assignments, including art and modeling projects. The workroom is equipped with a sink and collection containers for wastes generated from student projects. The university provides these collection containers as a good management practice to promote proper handling of these wastes. Periodically, these collection containers are brought to one of the university's hazardous waste storage areas. Is the waste collected in the workroom exempt from RCRA regulation under the household waste exemption? Can the university bring this waste to one of its waste storage areas as a generator without being classified as a treatment, storage, and disposal facility (TDSF)?

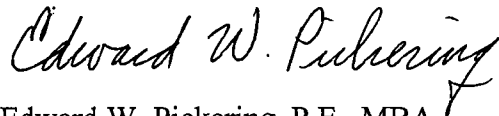


j:\n326 nemc\household waste.doc

If you require any clarification on my questions or would like to discuss them further prior to preparing your written response, please call me at (781) 431-0500, Extension 141. I appreciate your assistance.

Sincerely,

**ENVIRONMENTAL SCIENCE SERVICES, INC.**



Edward W. Pickering, P.E., MBA  
Senior Project Manager



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

11/2

JUN 12 2001

David Nash, Director  
Connecticut DEP  
Waste Engineering and Enforcement Division  
Bureau of Waste Management  
79 Elm Street  
Hartford, CT 06106-5127

Dear Mr. Nash:

This letter responds to your March 14, 2001 letter requesting EPA New-England's interpretation of the regulatory status of a container (55-gallon drum) that is connected to a cyclone dust collector for the purpose of accumulating waste solids removed by this device. The source of this waste, according to CT DEP, is a deburring operation that is ducted from the cyclone unit. The CT DEP has requested that EPA determine whether the container, used to collect solids removed by the cyclone, is subject to the container management regulations of 40 CFR 262.34(a)(3) and/or 262.34(c)(1), or whether this container is exempt under 40 CFR 261.4(c) on the basis that this container is an "integral" part of the manufacturing unit.

EPA has reviewed the information submitted by the CT DEP and determined that the 55-gallon container attached to the cyclone unit is subject to the container management requirements as outlined under 262.34. CT DEP provided copies of two EPA interpretative letters (Faxback 14200 and Faxback 11921) as part of this interpretation request. Faxback 14200 contained an interpretation of the term "integral" component as it applied to the status of a silo system directly connected to a cyclone unit. The interpretative letter is not determinative of this matter and addressed the "unique situation" of fixed silos constructed as parts of dust handling systems. In general, EPA has not exempted baghouse dust or other sludge from RCRA requirements once it is removed from an air pollution control device. Faxback 11921 addressed the issue of whether dusts were considered solid wastes prior to collection in a baghouse or electrostatic precipitator, two types of air pollution control units. Faxback 11921 states that RCRA applicability determinations generally would be made once the material is removed from the baghouse.

EPA's determination of the regulatory status of the 55-gallon container considered several facts. First, the 55-gallon container is neither a manufactured item that is provided by the vendor as a fixed component to the cyclone unit nor is it an item that is otherwise required to ensure the proper operation of the cyclone unit. A cyclone is designed to both remove and store particulate matter from an air emission source. The 55-gallon container is not necessary and only facilitates the eventual transfer and removal of the wastes already separated and collected by the unit. As such, the storage of waste within the cyclone is not immediately regulated since this device is part of a manufacturing unit. However, the initial point of regulation occurs when these dusts exit the conical end of the cyclone device for storage in the 55-gallon container since the dust has exited the manufacturing unit in which it was initially generated (See 40 C.F.R. 261.4(c)). The 55-gallon container is also the same container that is ultimately shipped off-site to a permitted Treatment, Storage or Disposal facility as evidenced by the removal of the container once 55-gallons of waste has been accumulated. This fact is not a critical element, however, since the drum would be subject to the RCRA requirements upon first receipt of the dusts, regardless.

The regulation of the 55-gallon container as either a satellite or less-than-ninety day container does not represent any new or significant change in EPA's position in this matter. The status of

David Nash  
Page 2

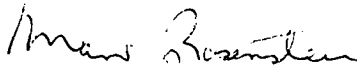
JUN 12 2001

the 55-gallon container is consistent and similar with how EPA regulates roll-off boxes, gaylords or other types of containers used to collect sludges generated from pollution control devices such as wastewater treatment systems. In those instances, the treatment portion of those systems, the tank related portions of those systems and any conveyances associated with those systems are exempt under the wastewater treatment exemption. However, any container used to accumulate such wastes, as is the case in your example, is not exempt under the current RCRA regulations.

The regulated status of the 55-gallon container described above is also consistent to other similar situations where the use of containers to collect hazardous wastes, while necessary, is not considered "integral." An example of this is the use of a container to collect waste discharges produced by the operation of analytical equipment. In those situations, the failure to use any type of container to collect the waste generated by the analytical equipment would result in an uncontrolled release of a hazardous waste. The use of a container to collect hazardous waste discharges, while essential to prevent spillage, are not "integral" to the process and, therefore, is subject to full regulation. We have recently observed that some manufacturers of analytical equipment have redesigned their equipment to incorporate these containers as a fixed component with added safety features to ensure that the analytical equipment can not operate if the container is full or not properly attached to the unit. We have considered those containers to be "integral" under those circumstances. For the scenario you describe above, however, the cyclone unit is both a treatment and initial storage device so that any container then used to collect dusts from the unit would not be "integral" to the process.

If you have any questions concerning this matter, please call Kenneth Rota at (617) 918-1751 or Sharon Leitch at (617) 918-1647.

Sincerely,



Marvin Rosenstein, Chief  
Chemicals Management Branch  
EPA-New England

cc: Ken Rota, Chief, RCRA Technical Unit  
Gary Gosbee, Chief, Hazardous Waste Unit  
Jeff Fowley, Atty., Office of Regional Council



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 1**

**1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023**

1037

June 7, 2001

Mr. Ken Chin  
Central Artery/Tunnel Project  
185 Kneeland St.  
Boston, MA 02111

re: Central Artery/Tunnel (CA/T) Project  
Applicability of Land Disposal Restrictions (LDRs) to De-characterized Toxicity  
Characteristic (TC) Soil

Dear Mr. Chin:

This letter is in response to a letter of transmittal from your office which was addressed to Ken Rota, Chief of the RCRA Enforcement Unit at EPA Region 1 on April 11, 2001. The purpose of the transmittal letter was to request confirmation from EPA Region 1 that the interpretations contained in an attached letter from Camp Dresser & McKee (CDM), Inc. to yourself, dated April 10, 2001, regarding the handling of lead contaminated soil at the Central Artery/Tunnel Project (the "Project"), are accurate. Specifically, whether LDRs would apply to soil that is treated "in-situ" and "ex-situ".

The current practice at the Project has been to apply the MAECTITE treatment process to soil that is hazardous for the characteristic of lead in order to "decharacterize" the soil. This treatment is performed "ex-situ", and, as a result, RCRA generator and LDR requirements apply. The Project is currently seeking approval from the MADEP to perform treatment of the soil "in-situ". During this process questions have arisen regarding the applicability of the RCRA regulations to in-situ treatment. As is noted in the April 10 letter, EPA Region 1 issued an interpretation regarding the applicability of RCRA to soils treated "in-situ" and "ex-situ" in a letter dated December 22, 1997, to Peter M. Zuk of the CA/T Project. EPA's position has not changed since that time: if a hazardous waste is not generated, as when soil is treated in-situ within an area of contamination ("AOC"), then LDRs do not apply. However, when a hazardous waste is generated by excavation of soil with a hazardous characteristic which is then treated ex-situ, LDRs do apply.

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Ken Chin  
Page 2  
June 7, 2001

One scenario where LDRs would not apply would be where a corrective action management unit (CAMU) is created for the treatment, storage or disposal of remediation waste. EPA has developed particular RCRA requirements to encourage management of remediation waste under the CAMU rule (see 40 CFR §264.552). However, the rule would only apply to a site where the remediation waste, in this case treated soil, is placed in a CAMU which would be subject to site specific disposal controls. This approach does not appear to be applicable to the Project.

One point that is mentioned in the CDM letter which was not addressed in the December 22, 1997 EPA letter is that when additional treatment to achieve universal treatment standards (UTS) is necessary, for soil which was treated ex-situ, that the additional treatment may be performed outside of the area of contamination (AOC), but must be completed prior to the soil's final off-site disposal or reuse. Please note that this additional treatment if performed outside of the initial site of generation can only be done under the requirements of a RCRA permit. The treatment that is performed "ex-situ" in tanks and containers but within the AOC is considered by EPA to be treatment being done by a generator in tanks and containers at the initial site of generation, and, therefore, would not require a permit. However, any additional treatment that may be required, i.e. to meet LDRs, would need to occur at a permitted treatment, storage or disposal facility (TSDF).

The CA/T project may want to consider making a hazardous waste determination of any excavated soil prior to performing treatment ex-situ to determine the actual regulatory status of the soil. For a situation where it is determined that the soil is not a hazardous waste, initial treatment would not be necessary and LDRs would not apply since a hazardous waste has not been generated. However, if a determination is not made and it is assumed that all soil being treated ex-situ is hazardous, LDRs would apply.

Please note that individual state regulations may be both more stringent and broader in scope than the EPA regulations. Since Massachusetts is authorized for the base RCRA program, which includes hazardous waste determinations, generator and permitting requirements, you should contact the State regarding its views on the above issue.

Ken Chin  
Page 3  
June 7, 2001

If you have any questions regarding this letter please contact Sharon Leitch of the Hazardous Waste Unit at (617)918-1647.

Sincerely,

A handwritten signature in black ink, appearing to read "Marvin Rosenstein", written in a cursive style.

Marvin Rosenstein, Chief  
Chemicals Management Branch

cc: G. Gosbee, Chief, Hazardous Waste Unit, EPA  
K. Rota, Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
J. Carrigan, Compliance Assessment Branch, MADEP

**Central Artery/Tunnel**

185 Kneeland Street  
Boston, Massachusetts 02111  
Telephone: (617) 951-6000

**LETTER OF  
TRANSMITTAL**

DATE: 11-APR-2001  
COMM NO.: T-2001-00623L  
FILE NO(S): EN-9.3.87  
CL-1.2

**TO:** Ken Rota, mail code SER  
Chief of RCRA Enforcement Unit  
US Environmental Protection Agency  
One Congress Street  
Boston, MA 02203

**KEYFILE NO. -**  
**RE:** In-situ De-characterization of TCLP-Lead Soil

**ATTENTION:**

WE ARE SENDING YOU ☐ ATTACHED ☐ UNDER SEPARATE COVER VIA \_\_\_\_\_ THE FOLLOWING ITEMS:  
☐ REPORTS ☐ PRINTS ☐ PLANS ☐ SAMPLES ☐ SPECIFICATIONS  
☒ COPY OF LETTERS ☐ CHANGE ORDER ☐ OTHER: \_\_\_\_\_

COPIES	DATE	NO.	DESCRIPTION
<u>1</u>	<u>10-APR-2001</u>		<u>Letter, LO-CAT-01-26G-0221, from Camp Dresser &amp; McKee, Inc.</u>
			<u>to Ken Chin of Bechtel/Parsons Brinckerhoff</u>
			<u>Subject: In-situ De-characterization of TCLP-Lead Soil</u>

**THESE ARE TRANSMITTED AS CHECKED BELOW:**

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☐ FOR REVIEW AND COMMENT ☐ PRINTS RETURNED AFTER LOAN TO US  
☐ FOR YOUR SIGNATURE  
☐ FOR BIDS DUE \_\_\_\_\_

**REMARKS:**

Enclosed please find the above letter prepared by Camp Dresser & McKee, Inc. (CDM) requesting confirmation from EPA Region I regarding applicability of Land Ban Restriction on soil that has been de-characterized using an in-situ treatment process. If you have any questions on this matter, please call Ken Chin at (617) 951-6486.

CC: Steve Lipman, MADEP

**COPY TO:**

IF ENCLOSURE(S) ARE NOT AS NOTED, PLEASE  
NOTIFY US IMMEDIATELY.

AD117 (8/99) ORACLE (10/99) KSCHIN WPD

CENTRAL ARTERY/TUNNEL PROJECT

TRANSMITTED BY: Paul Stakutis

Paul Stakutis  
SIGNATURE

# CDM Camp Dresser & McKee Inc.

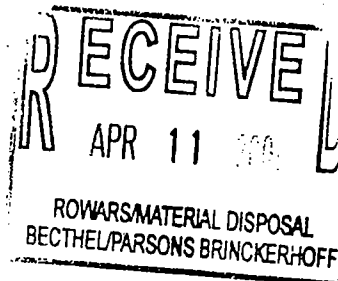
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engineering  
construction  
operations

One Cambridge Place  
50 Hampshire Street  
Cambridge, Massachusetts 02139  
Tel: 617 452-6000 Fax: 617 452-8000

April 10, 2001

LO-CAT-01-26G-0221

Mr. Ken Chin  
Authorized Representative  
CA/T Project  
Bechtel/Parsons Brinckerhoff  
185 Kneeland Street  
Boston, MA 02111



Subject: Central Artery (I-93)/Tunnel (I-90) Project  
Contract 97159-M026G  
Construction Contract C25A4 - In situ De-characterization of TCLP-Lead Soil

Dear Mr. Chin:

For several years, the CA/T Project has been using the MAECTITE treatment process to de-characterize TCLP-lead soil prior to off-site disposal. To date, the treatment has all been performed ex situ by application of the treatment solution to the excavated soil as it is placed into lined truck beds or roll-off containers. There is currently a plan to also conduct the treatment in situ subject to MDEP approval, and an in situ pilot test needed to obtain that approval was recently proposed in CDM letter LO-CAT-01-26G-0210.

During the recent discussions regarding the proposed in situ application of the de-characterization process, some questions have been raised regarding regulatory differences pertaining to the ex situ and the in situ approaches. Based on our understanding of the applicable RCRA regulations, as well as information presented in the December 22, 1997 EPA Region I letter (copy attached) regarding the on-site de-characterization process, we believe the basic regulatory difference is as follows:

- Ex situ treatment - Because the soil when initially excavated is untreated, a RCRA characteristic hazardous waste is generated when the soil is removed from the ground. As a result, all applicable RCRA generator requirements and land disposal restrictions (LDRs) apply. The LDRs include requirements to achieve the universal treatment standards (UTS) for all underlying hazardous constituents (UHCs) prior to final off-site disposal or reuse of the soil. Additional treatment to achieve the UTS for all UHCs above the applicable standards may be performed outside the area of contamination (AOC), but must be completed prior to the soil's final off-site disposal or reuse.
- In situ treatment - Because the TCLP-lead characteristic is eliminated prior to excavation of the soil, RCRA hazardous waste is never generated in this approach. The soil is removed from the ground. The material when excavated is not a characteristic hazardous waste, and RCRA generator and LDR requirements do not apply.

Mr. Ken Chin

April 10, 2001

Page 2

do not apply. As such, there are no requirements to remove the excavated soil from the site within the 90 day storage limit nor to treat any UHCs that may be present to meet the UTS prior to off-site disposal or reuse. The excavated material must only meet the permit requirements of the selected off-site disposal facility.

This distinction between the two approaches regarding the applicability of the LDRs has potentially significant cost ramifications for final material disposal at an off-site location. For example, there have been several instances to date when, following ex situ de-characterization, the concentrations of individual polycyclic aromatic hydrocarbon (PAH) compounds have required additional off-site thermal treatment of the soil in order to meet UTS prior to final disposal. In addition to the increased costs for the additional treatment, this has limited the selection of potential off-site facilities to receive the soil following de-characterization to only those facilities that can provide the required additional treatment. Had the UTS not been applicable, the PAH concentrations would have been within the permit limits for direct off-site disposal at a much wider selection of facilities without additional treatment.

Because of the significant cost impacts to the CA/T Project associated with the above noted regulatory interpretation, we recommend that a copy of this letter be forwarded to the attention of Mr. Ken Rota at EPA Region I with a request for EPA's confirmation that the interpretation is accurate.

Please contact us if you want to discuss this matter further, or require additional information.


Very truly yours,

CAMP DRESSER & MCKEE INC.



Richard G. Christian, P.E.  
Associate  
Deputy Project Director

APPROVED BY:



Bruce R. Conklin, P.E.  
Vice President  
Project Director

Enclosure

cc: A. Sewall  
W. Swanson



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION I**  
**JOHN F. KENNEDY FEDERAL BUILDING**  
**BOSTON, MASSACHUSETTS 02203-0001**

December 22, 1997

Peter M. Zuk, Project Director  
 Massachusetts Highway Department  
 Central Artery/Tunnel  
 One South Station  
 Boston, MA 02110

re: Central Artery/Tunnel (CA/T) Project  
 Proposed Treatment Process for Toxicity Characteristic (TC) Soil

Dear Mr. Zuk:

The Hazardous Waste Program Unit of EPA-New England is in receipt of your letter dated December 1, 1997, in which you inform EPA of your intention to implement a process to remove and treat TC-lead contaminated soil from the CA/T Project on a project-wide basis. Implementation of the process is based upon the results of pilot studies performed on 250 cubic yards of TC-lead excavate which successfully demonstrated that all of the TC-lead levels were reduced to levels well below the regulatory limit of 5.0 mg/l. In that letter you state that you intend to treat lead-contaminated soil by applying and mixing a liquid reagent with the TC-soil in order to reduce the leachability of metals by crystal mineralization.

As indicated above, the soil contains lead which may be found at levels that would define it as a hazardous Toxicity Characteristic (TC) waste. The TC rule was promulgated by EPA under the authority of the Hazardous and Solid Waste Amendments (HSWA) and therefore is implemented by EPA in all states until such time that the states become authorized for the rule. The Commonwealth of Massachusetts will be seeking authorization for the TC rule during 1998. The implications of this on your situation would be that if the process is deemed to need a RCRA Part B permit because of the TCLP test, EPA would be the permit issuing authority in states that do not have TC authorization.



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Peter M. Zuk  
Page 2  
December 22, 1997

In your correspondence two general treatment scenarios are proposed to implement the previously defined treatment process. These scenarios have been interpreted by the environmental consultants to the CA/T project as being exempt from the RCRA permitting process. The scenarios are as follows: Scenario 1- "Treatment of Confirmed TC-Soil In Situ" proposes to apply the liquid reagent to in-situ soil that exceeds or potentially exceeds the regulatory limit for TC-lead. The reagent will be applied to treat the soil in lifts of 18" to 24" deep. As indicated in the letter, the treatment process occurs almost instantaneously upon application of the reagent and, therefore, when the treated soil is excavated it is no longer considered a RCRA hazardous waste. This treatment scenario, as indicated above, is considered to not need a RCRA permit. EPA agrees with this interpretation since no hazardous waste is being generated under this scenario. Additionally, as indicated in the letter the handling and storage of any treated stockpiled-soil will be done in accordance with the November 1993 Compliance Plan approved by DEP within the AOC ("area of contamination"); Scenario 2- "Treatment of TC-Soil in Tanks and/or Containers" proposes to treat the excavated TC-soil within the identified AOC by applying the reagent to the soil as it is being placed in watertight containers. The treated soil will be stored in the same manner as indicated under Scenario 1. As mentioned previously, this treatment scenario as proposed is considered not to need a RCRA permit. EPA, again, agrees with this interpretation, assuming that the requirements discussed below are met. However, since a hazardous waste is being generated certain generator requirements must in any event be met.

The exclusion from permitting which may apply to your process is found in 40 CFR § 264.1, which states that the requirements of Part 264 - Standards for owners and operators of hazardous waste TSDFs, do not apply to:

A generator accumulating waste on-site in compliance with 40 CFR § 262.34. In connection with such accumulation, the EPA also has determined that permits are not required for generators treating their hazardous wastes in the generators' tanks or containers in conformance with the requirements of § 262.34 and Subparts I or J of Part 265. See 51 Fed. Reg. at 10168 (March 24, 1986), and 40 C.F.R. § 268.7(a)(4).

In order to qualify for this exemption from the permitting requirement, the waste must be treated by the generator and stored for no more than 90 days. In addition, the waste must be treated within tanks or containers as defined in 40 C.F.R. § 260.10. Finally, all parts of your system involved in storing and treating the waste must meet the requirements of 40 C.F.R. § 262.34 and 40 C.F.R. Part 265, Subparts I or J, and

Peter M. Zuk  
Page 3  
December 22, 1997

Subparts AA, BB, and CC. In order to be excluded from the permitting requirement, you need to ensure that all of these requirements are met.

Assuming that you do qualify for the exemption from permitting, you must still meet all applicable generator requirements. In removing any soil which is a hazardous waste, you are considered to be generating a hazardous waste, even if it is then rendered non-hazardous by your treatment. The applicable requirements include obtaining an EPA ID number as the generator of a hazardous waste. 40 C.F.R. § 262.12.

In addition, while the treated soil will be non-hazardous if it does not fail the Toxicity Characteristic, it still must meet all applicable land disposal restrictions (LDR). The current LDR treatment standard for lead for this type of waste is 5.0 mg/l TCLP. As a generator treating wastes subject to LDR, you also will be required to develop and follow a written waste analysis plan pursuant to 40 C.F.R. § 268.7(a)(4).

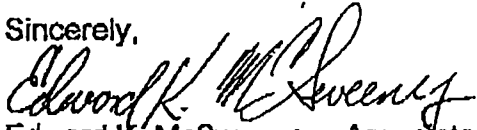
Although an EPA permit will not be required for the treatment process if you meet the requirements stated above, you are reminded that individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, you will need to contact the state for a determination regarding its views on the regulatory status of the treatment process. Since Massachusetts is authorized for the base RCRA program, which includes sections 261, 262, and 264 of 40 CFR, it maintains the authority to make more stringent determinations regarding exclusions.

In summary we believe for reasons previously discussed that an EPA hazardous waste permit will not be required for the above activity under Scenario 2 if you meet the requirements discussed above. However, the Massachusetts Highway Department will be subject to federal generator requirements, including LDR requirements, and also should contact the MADEP to determine if there are provisions that are more stringent or broader in scope than EPA's.

Peter M. Zuk  
Page 4  
December 22, 1997

If you have any questions regarding this or any other issue, please do not hesitate to contact Gary Gosbee, Chief, Hazardous Waste Program Unit at (617) 565-3725. You may also contact Sharon Leitch, of his staff, at (617) 565-4879.

Sincerely,



Edward K. McSweeney, Associate Director  
Waste Policy

cc: G. Gosbee, Chief, Hazardous Waste Program Unit, EPA  
K. Rota, Acting Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
J. Miller, Chief, Waste Branch, MADEP  
J. Carrigan, Compliance Assessment Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Supervising Engineer, RIDEM  
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



*Sory - who should this be assigned to?*

March 14, 2001

United States Environmental Protection Agency  
Region 1  
John F. Kennedy Federal Building  
Boston, MA 02203-0001  
Attn: Marv Rosenstein

Re: **Regulatory interpretation on containers connected to dust collection devices.**

Dear Mr. Rosenstein:

In the past, EPA Region I has offered it's assistance with certain regulatory interpretations that would be beneficial for the entire region as opposed to one particular state. It is for this reason that Connecticut DEP is forwarding this request for regulatory interpretation to you, in an effort to ensure consistency on this issue throughout New England.

The question is whether or not a container (55-gallon drum) connected to the bottom of a cyclone dust collector, collecting hazardous waste solids generated from deburring operations, is subject to regulation under 40 CFR 262.34(a)(3) or 262.34(c)(1), or is exempt from regulation under 40 CFR 261.4(c). Specifically, the dust generated at seven deburring stations is down-drafted via duct pipes to a cyclone dust collector. In the device, particulates are removed from the air and collected in a 55-gallon drum connected to the bottom of the device. Once filled, the drum is disconnected from the dust collector, marked "Hazardous Waste" and moved to a designated hazardous waste storage area. The dust is disposed as F002, F003, F005, D006 and D007 hazardous waste. The generator claims that the drum, while connected to the dust collector and being filled with this waste, is exempt from RCRA regulation under 40 CFR 261.4(c). As a result, while the drum is connected to the dust collector, the generator does not mark it with the words "Hazardous Waste" and other words identifying the contents. The basis of the generator's claim is that: 1) the container is an integral part of the process (i.e. helps prevent leakage), and 2) the waste is not removed from the process until the drum is disconnected from the dust collector.

Enclosed is a copy of the package of material dated November 8, 2000 sent to the DEP by Sikorsky Aircraft Corporation (the generator described above). Included in the package are: 1) EPA Faxback 11921 from U.S. EPA to James A. Lively, dated October 19, 1995 and 2) EPA Faxback 14200 from U.S. EPA to William Guerrey, dated June 1, 1998. Sikorsky maintains that these two EPA documents help support their claim.

DEP is requesting EPA's interpretation on Sikorsky's submittal so that DEP may more accurately be able to assess their claim for an exemption from certain RCRA regulations,

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*to: Marv  
Jeff Kowalsky  
Ken B. J.  
Matt  
Hagland*

*all  
original  
to  
Sory  
Dorbin*

*Nov 2  
3/22*

and be consistent with other Region I states. If you have any questions regarding this request, please contact Paul Hassler of my staff at (860) 424-3284.

Sincerely,

A handwritten signature in black ink, appearing to read "D. A. Nash", written in a cursive style.

David A. Nash, Director  
Waste Engineering and Enforcement Division  
Bureau of Waste Management

DAN/ph  
Enc.

cc. Jim Gaffey, U.S. Environmental Protection Agency

Sikorsky Aircraft Corporation  
6900 Main Street • P.O. Box 9729  
Stratford, Connecticut 06615-9129  
(203) 386-4000



**Sikorsky**

A United Technologies Company

November 8, 2000

Mr. Paul Hassler, Environmental Analyst  
Engineering and Enforcement Division  
Bureau of Waste Management  
Department of Environmental Protection  
79 Elm Street, Hartford, CT 06106 - 5127

SENT BY CERTIFIED MAIL

Re: Notice of Violation # HM-1114  
6900 Main Street, Stratford, CT

Dear Mr. Hassler:

This document is submitted in response to the Notice of Violation, received October 16, 2000 concerning two observations during the July 12, 17 and 18 inspection:

1. Identify the contents of a satellite accumulation container as required by Section 22a-449(c)-102(a)(2)(C) of the Regulation of Connecticut State Agencies incorporating 40 CFR 262.34(a)(3).

Referring to page 11a of the DEP inspection report dated 9/12/00:

One 55-gallon drum was marked "Hazardous Waste" and dated 5/17/00, but lacked a description of contents. Instead it was marked "dept. #527" and in the section designated for Sikorsky's waste stream number, "To Be Determined." Prior to completion of this inspection, the contacts showed me a Sikorsky internal memo from Linda Barlow to Kevin Broderick dated 7/14/00, entitled "Stream for Drum of Quad II NB at Drum Building."

Section 22a-449(c)102(a)(2)(C) requires that in addition to the words, "Hazardous Waste," containers shall be marked with other words that identify the contents of the container.

The container was a raw material used in boiler treatment and it was determined to be obsolete. The original raw material label was intact on the container. This label identified the raw material name, Quad II NB, and the name, address and telephone number of the manufacturer. This information was used to obtain a copy of the Material Safety Data Sheet and to complete the waste determination. The waste was assigned waste stream number 029200 and it was

shipped off-site for treatment and disposal on August 4, 2000. Copies of Linda Barlow's internal memo, her handwritten notes taken from the label, and the Material Safety Data Sheet are contained in Appendix 1.

Sikorsky maintains that the original product label on the container satisfied the Connecticut requirement to describe the waste material. To further assure there is no mix-up concerning the identification of waste, Sikorsky will instruct personnel to record the raw material trade name directly on the hazardous waste label.

2. Mark seven containers with the words, "Hazardous Waste" and identify their contents as required by Section 22a-449(c)-102(a)(2)(C) of the Regulation of Connecticut State Agencies incorporating 40 CFR 262.34(a)(3).

Page 3a(E) of the DEP inspection report, dated 9/12/00, states:

Solids drop to a 55-gallon drum attached to the bottom of the dust collector. The drum is sealed to the dust collector via a flexible duct. On the side of the drum were the remains of a hazardous waste marker that had been scratched off. This waste stream (Sikorsky stream # 027052) is disposed as F002, F003, F005, D006 and D007 hazardous waste..... The contacts stated that the marker was removed because they no longer regarded the drum as a container subject to 40 CFR Part 265, Subpart I, but rather as an integral part of the dust collection system, exempt from regulation in accordance with 40 CFR 261.4(c). They stated that because the drum is connected to the dust collector and the unit cannot function properly without this drum (e.g. the unit would lose air-flow velocity and/or spill dust on the floor), it is all one piece of equipment. The contacts could not produce any EPA or DEP documents to support this regulatory interpretation. The contacts stated that once it becomes full and is removed from the dust collector to the hazardous waste storage building, the drum is marked "hazardous waste" and managed as a waste container. This is one of approximately seven dust collectors located throughout the facility that are managed similarly, each of which generates hazardous waste.

The matter expressed in the report concerns the interpretation of 40 CFR 261.4(c) which states:

A hazardous waste which is generated in a.... manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation..... until it exits the unit in which it was generated....

The key issues we have identified are:

1. When does the material become a waste; and
2. At what point has the waste been removed from the process.

Two documents that address baghouse dust are referenced below; copies of them are provided in Appendix 2:

1. EPA Faxback 11921 from U.S. EPA to Mr. James A. Lively, 10/19/95
2. EPA Faxback 14200 from U.S. EPA to Mr. William M. Guerry, 6/1/98

In the first correspondence, EPA states that in order to evaluate the type of equipment with regard to 261.4(c), it must first be determined at which point the dust residue is considered to become a waste (reference Faxback 11921, paragraph 2).

The Sikorsky process is a metal parts deburring operation. Seven deburring stations are manifolded together so that a downdraft flow of air captures dust and particles from the deburring operation. The air stream passes through a cyclone-type of apparatus so that the particulate settles out and the air is exhausted. The dust is derived from materials that are not wastes. The regulatory status of the materials going into the duct system is that they are inherently part of the deburring process.

The container where the particulate settles is integral to the process. The integrity of the complete deburring operation is intended to prevent leaks. This level of integrity depends upon the direct connection between the deburring station and the dust collector, hoses, funnel and container. The system is designed to be operated in conjunction with the deburring operation. In the second correspondence listed above, EPA writes: "We have stated in the past that 'determining the applicability of RCRA [to baghouse dust] would generally be made when the material is removed from the baghouse.'"

To assure that the waste is properly labeled and managed when it is removed from the dust collection system, Sikorsky has implemented a labeling system for the seven dust collectors described in the inspection report. The equipment has been marked with a label indicating the proper Sikorsky waste stream number for the waste when it is removed from the system. A copy of the label is attached in Appendix 3. This system assures that waste is properly evaluated for hazardous waste characteristics and that it is labeled as RCRA-hazardous or non-hazardous based on the determination after its removal.

Thank you for this opportunity to confirm that all corrective actions have been addressed. We do not believe Sikorsky operations were deficient at the time of the inspection. We apologize for any misunderstandings that occurred during the inspection and that the EPA documents were not provided sooner to avoid issuance of the notice of violation. We would be pleased to sponsor a forum for agency and industrial professionals to explore the interpretation and applicability of 261.4(c).

If you need additional information, please contact Susan Carey, Principal Environmental Engineer, at 203-386-5633 or call me at 203-386-6326.

Sincerely yours,

UNITED TECHNOLOGIES CORPORATION



Robert J. Araujo  
Manager of Environmental Engineering  
SIKORSKY AIRCRAFT CORPORATION

enclosures

- Attachment 1 Documents that indicate the raw material was labeled at the time of the inspection
- Attachment 2 EPA memorandum concerning interpretation of 40 CFR 261.4(c)
- Attachment 3 Sikorsky labeling

## **Attachment 2**

**EPA memorandum concerning  
interpretation of 40 CFR 261.4(c)**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE  
OF  
SOLID  
WASTE  
AND  
EMERGE  
RESPONS

Date: June 1, 1998

Mr. William M. Guerry, Jr.  
Collier, Shannon, Rill & Scott, PLLC  
3050 K Street, N. W.  
Suite 400  
Washington, D.C. 20007

Dear Mr. Guerry,

Thank you for your letter of December 3, 1997 regarding the management of emission control dust from electric arc furnaces (EAFs), and specifically, requesting a regulatory determination under the Resource Conservation and Recovery Act (RCRA) for silos that collect captured emission control dust from baghouses.

As your letter describes, baghouses that are part of EAF emission control equipment filter out metal fumes and other emissions from the furnace as EAF dust. As the emissions are filtered in the baghouse, the EAF dust settles and collects in hoppers located in the lower portion of the baghouse. Your letter describes how some steel mills are now using baghouse silo systems to improve the management of EAF dust. The silo, located adjacent to the baghouse, receives the EAF dust from the baghouse hoppers via piping. The silo serves as a single collection point for the EAF dust and a single discharge point of that dust to trucks or rail cars.

Your letter mentions that states have considered baghouse silos to be either a component of the EAF's dust handling system in compliance with the Clean Air Act (CAA), or a regulated hazardous waste storage unit (e.g., tank). We believe that a baghouse silo that is directly connected via piping to the baghouse, as described in your letter, is an integral part of the EAF emission control system. We believe that baghouse silos fall within the scope of what the CAA regulations define as a "dust handling system" (40 CFR 60.271a).

*Dust-handling system means equipment used to handle particulate matter collected by the control device for an electric arc furnace or AOD vessel subject to this subpart. For the purposes of this subpart, the dust-handling system shall consist of the control device dust*

*hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment from storage to truck), and any secondary control devices used with the dust transfer equipment. (emphasis added)*

Faxback 14200

In the baghouse-silo system described in your letter, the EAF dust is conveyed from the baghouse device into the silo, from which the dust is then loaded into trucks or rail cars for

transport. As you pointed out, fugitive emissions from the dust handling equipment are subject

to CAA requirements. We have stated in the past that "determining the applicability of RCRA

[to baghouse dust] would generally be made when the material is removed from the baghouse"

(letter from Kidwell to Lively, October 19, 1995; permit policy compendium no. 9441.1995(33)).

Because of the unique situation you described, where enclosed silos are integral to the baghouse

dust handling system, we believe that it is reasonable that the applicability of RCRA be determined when the material is removed from the silo. Thus, the silo in this case serves as part

of the dust handling system, and would not be subject to RCRA, with the understanding, based

on your letter, that the purpose of the overall system is dust collection and conveyance, and that

the silo contains the EAF dust, which is hard-piped from the baghouse, protecting it from environmental impacts such as precipitation, so that there are no releases from the silo to soils or

groundwater. EPA would have to analyze separately any baghouse-silo arrangement that did not

match the description in your letter to determine whether the silo would be an integral part of the

dust handling system and, therefore, not subject to RCRA regulation. In addition, any long term

storage would indicate that the silos are not functioning simply as part of EAF emission control

systems, but as waste storage units as well, in which case they could be subject to RCRA requirements.

Please note that because RCRA authorized states may have more stringent requirements than the federal program, we suggest that facilities contact their state agency to determine whether any additional requirements apply. Should you have any questions about the contents of this letter, please contact Jeff Games of my staff at (703) 308-8655.

Sincerely,

Elizabeth A.  
Cotsworth,

Acting  
Director  
Office of  
Solid Waste

cc: Matt Hale, OSW  
Steve Heare, OSW  
Dave Bussard, OSW  
William Sonntag, Office of Reinvention  
Brian Grant, OGC  
Al Vervaert, OAQPS  
Christopher Oh, OECA

Faxback 11921

9441.1995(33)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

October 19, 1995

James A. Lively  
The TDJ Group, Inc.  
760-K Industrial Drive  
Cary, Illinois 60013

Dear Mr. Lively:

This letter is written to clarify a point regarding the applicability of RCRA to a foundry manufacturing duct system, as discussed in your August 4, 1995 letter summarizing our July 26, 1995 phone conversation. As stated in your letter and in our conversation, site-specific determinations of RCRA applicability are made by the appropriate state regulatory agency.

As you state in your letter, it is correct that, in general, a material is not considered a solid waste until it is collected in a baghouse or electrostatic precipitator. However, for point of clarification, I should note that this assumes that the material in question (e.g., baghouse dust) results from a production unit, i.e., that the baghouse dust is derived from materials that are not themselves wastes. In such a situation, determining the applicability of RCRA would generally be made when the material is removed from the baghouse. However, should the material in the baghouse result from the treatment or other management of a material already determined to be a solid waste, the question of RCRA applicability to the particulate matter will have already been determined because the particulate matter is derived from a solid/hazardous waste and the duct system is, in effect, a part of a waste management process.

Therefore, to correctly ascertain the applicability of RCRA to the process of injecting a chemical additive in a foundry duct system, it is important to know the regulatory status of the materials going into the duct system. While such a distinction has little impact in manufacturing duct systems in general, it may be an important distinction in specific cases. Again, I strongly encourage you to seek a site-specific determination from the state regulatory agency or appropriate EPA Regional office.

Thank you for your interest in making the appropriate regulatory determinations under RCRA. Should you have any questions concerning this response, please feel free to contact me at (202) 260-8551.

Sincerely,

Mitch Kidwell  
Environmental Protection  
Specialist  
Generator and Recycling Branch

-----  
Attachment  
-----

The TDJ Group, Inc.  
760-K Industrial Drive  
Cary, Illinois 60013

August 4, 1995

Mitch Kidwell  
US EPA OSW, Regulatory Development Division (5304)  
401 M Street Southwest  
Washington, DC 20460

Dear Mr. Kidwell:

I am writing this letter in response to our phone conversation on the morning of July 26, 1995. First I would like to thank you for your cooperation in discussing the sometimes confusing issue involving the point of generation of a waste in a foundry manufacturing duct system; your input is greatly appreciated. Secondly, I would like to take this opportunity to confirm some of the information that we discussed so that we are clear that the information was not misinterpreted and will not be misrepresented in our future discussions with state agencies. Up front, you were quite clear that appropriate state regulatory bodies should be making their own decisions but that you would be willing to assist them in this capacity if they so desired.

In our discussion, I asked where is the point of generation of a waste in a foundry duct system. Your response was that appropriate state authorities generally do not classify a material as a waste until it is collected in a baghouse or electrostatic precipitator. Further, I inquired about the process of injecting a chemical additive downstream from a gas conditioning tower (cooling tower), but upstream from a baghouse collector. Your opinion was that state authorities might consider the addition of chemical reagents immediately proceeding cooling tower as an action that would not constitute treatment subject to RCRA permit requirements as long as no vents or exit holes were present in the system downstream from the cooling tower.

If we do not receive a response, we will assume that the information herein is correct. If you feel any of the above was incorrectly interpreted during our conversation, please contact us for clarification. Thank you.

Sincerely,

James A. Lively

## **Attachment 3**

### **Sikorsky labeling**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

May 29, 2001

John Staskiewicz, Environmental Inspector  
City of Fall River  
Department of Public Health  
One Government Center  
Fall River, MA 02722

re: Solid Waste Disposal Regulations

Dear Mr. Staskiewicz:

We have prepared this letter in response to your correspondence dated April 17, 2001. It is our understanding that you have questions regarding the disposal of solid waste. In particular, you request EPA policy interpretation regarding the use of alternative cover material at solid waste landfills and the disposal of special waste at these landfills. Additionally, you asked why Massachusetts and Rhode Island have differing regulations regarding the disposal of special waste and the use of alternative cover material.

EPA's role in the regulation of landfills falls under the solid waste provisions (Subtitle D) of the Resource Conservation and Recovery Act (RCRA). The Federal role in Subtitle D was to establish regulatory direction by providing minimum nationwide permitting standards for protection of human health and the environment. The actual planning and implementation of solid waste programs under Subtitle D is a State and local function. Therefore, the use of alternative cover material and the disposal of special wastes at landfills is a State issue. On July 5, 1995, the EPA made the determination that the Massachusetts Subtitle D Municipal Solid Waste Landfill Permitting program met the minimum federal standards referenced earlier. In addition, on February 14, 2000, the EPA made the same determination for the State of Rhode Island. EPA has limited intervention authority related to Subtitle D issues in both States. Under the determination process the States were provided with discretion for alternative approaches which were protective of human health and the environment. As part of that determination, State statutes were required to meet the intent of the federal requirements, which gives them more flexibility when implementing their programs. However, they can also be more stringent. Therefore, States may have differing requirements in their solid waste rules, as appears to be the case between the two states mentioned.

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John Staskiewicz

Page 2

May 29, 2001

If you need further assistance or information regarding this response, please contact Sharon Leitch in the Hazardous Waste Unit in our Office of Ecosystem protection. She may be reached at (617)918-1647.

Sincerely,

A handwritten signature in cursive script, appearing to read "Marvin Rosenstein".

Marvin Rosenstein, Chief  
Chemicals Management Branch

cc: Ken Rota, Chief, RCRA Technical Unit  
David Webster, Chief, Massachusetts State Unit  
Gary Gosbee, Chief, Hazardous Waste Unit  
Jeff Fowley, Atty., Office of Regional Council



# CITY OF FALL RIVER, MASSACHUSETTS

DEPARTMENT OF PUBLIC HEALTH  
OFFICE OF THE BOARD OF HEALTH

April 17, 2001

APR 17 2001

Mr. Marvin Rosenstein  
Chief Chemicals Management Branch  
EPA Region I  
1 Congress Street  
Suite 1100 (CPT)  
Boston, MA 02114-2023

Dear Mr. Rosenstein:

I spoke with Mr. David Webster by telephone on Wednesday, April 11, 2001. During that conversation we discussed several issues.

The first issue was regarding the scope of work for the clean up of the settling basins at PG&E Brayton Point Station. Mr. Webster indicated that he would try to get me a copy of the consent decree between PG&E and the Conservation Law Foundation.

David referred me to Gary Gosbe for information regarding the second and third issues.

The second issue was to determine EPA policy regarding the use of alternative cover material at solid waste landfills, and the disposal of special waste at these landfills.

The third issue was why Massachusetts and Rhode Island have very different regulations regarding the disposal of special waste and the use of alternate cover material.

I called Gary Gosbe and left a message regarding these issues. I received a call from Sharon Leitch on April 17th. She was responding to my call to Gary Gosbe. We briefly discussed the issues listed above.

*cc: Gary*  
*Sharon*  
*Marvin*  
*I guess he*  
*wants a*  
*written*  
*response*  
*May*  
*5/1*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

March 16, 2001

John J. Duclos, Supervisor  
Hazardous Waste Compliance Section  
Waste Management Division  
N.H. Department of Environmental Services  
6 Hazen Drive  
P.O. Box 95  
Concord, N.H. 03302-0095

Re: Request for Regulatory Interpretation Regarding Spent Foundry Sand

Dear Mr. Duclos:

This is in response to your letter dated May 19, 2000 which requests a Regulatory Interpretation from EPA Region I. In that letter, you state that a foundry in New Hampshire is proposing to ship spent sand to the Noranda Mettallurgy, Inc. Horne Smelter in Quebec, Canada, a primary copper smelter. The sand reportedly contains 60% silica, 32% copper and 2,000 ppm total lead. It fails the Toxicity Characteristic Leaching Procedure (TCLP) test for lead. You state that the foundry has supplied documentation to the New Hampshire Department of Environmental Services (NHDES) that the smelter will use the sand as a fluxing agent (in addition to reclaiming the copper), that the use as a fluxing agent has been approved by the Canadian Ministry of the Environment, and that the lead will be vitrified and rendered "unleachable" as a result of the smelting process. You ask whether the sand should be considered a hazardous waste subject to regulation when shipped to this primary copper smelter for both use as a fluxing agent and reclamation of the copper. You further ask whether it would make any difference if the sand instead was shipped to a primary lead smelter or to a secondary copper or lead smelter.

In our opinion, the spent foundry sand would be subject to regulation as a hazardous waste when shipped to the primary copper smelter for reclamation of the copper, even if also used as a fluxing agent. It also would be subject to regulation if shipped to a primary lead smelter or to a secondary copper or lead smelter for reclamation of either copper or lead even if also used as a fluxing agent.

Explanation of Position

Under 40 CFR § 261.2(e)(1)(ii), a secondary material being "used or reused" as an "effective substitute" for a commercial product is exempt from regulation under certain circumstances. However, this exemption does not apply if the material must be reclaimed before being used or reused. The definition of "used or reused" in 40 CFR 261.1(c)(5)(i) states that use/reuse is not

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occurring "if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials)." As the EPA explained in the RCRA/Superfund/OUST Hotline Monthly Report (May 1992)(copy enclosed), the 40 CFR § 261.2(e)(1)(ii) exemption only applies when materials are functioning as raw materials by being directly used or reused, and "a material that must be reclaimed prior to use (or reuse) as an effective substitute for a commercial product is not being directly used (or reused) and so would not qualify for the exemption."

When components of a hazardous spent material are recovered, the spent material is considered to be "reclaimed" (see 40 CFR § 261.1(c)(4)) and is subject to regulation. 40 CFR § 261.2(c)(3) and Table 1. This is so whether it is a hazardous waste component like lead or a non-hazardous waste component like copper that is being recovered. The EPA regulations state that a material is "reclaimed" if it is "processed to recover a usable product." 40 CFR § 261.1(c)(4). Such processing occurs whether it is a hazardous or a non-hazardous component that is being recovered.

Also, spent materials being reclaimed are regulated whether they are sent to primary or secondary smelters. Spent materials sent to operations such as secondary smelters which engage generally in reclamation clearly are subject to regulation. In adopting its current regulations regarding recycling, the EPA also interpreted its regulations to mean that certain secondary materials including spent materials should be regulated when sent to primary smelters. The EPA rejected the argument that all secondary materials sent to primary smelters for material recovery should not be regulated since such materials would be substitutes for normal raw material feedstock. Rather, the EPA stated, "when a secondary material is to be recovered in an operation different from the one in which it was generated, we believe there is a continuum with secondary materials becoming more waste-like the more the recovery operation differs from the original process, and the more physically removed the recovery operation is from the original process." 50 Fed. Reg. 614, 640 (January 4, 1985).

Finally, we are advised that the EPA Office of Solid Waste (OSW) consistently has taken the position that spent materials which are both reused (e.g., as a fluxing agent) and reclaimed (e.g., for recovery of lead or copper) are subject to regulation. When foundry sand is sent for reclamation, the overall transaction has significant aspects of waste management, even if the sand also is useable as a fluxing agent. This is particularly so when foundry sand is sent to a copper smelter, since this transaction involves using the smelter to treat and dispose of the sand's lead as well as to recover the copper.

We recognize that arguments have been advanced in favor of changing EPA's interpretations so as to exempt from regulation materials which are both reused and reclaimed, or materials sent to primary smelters or materials sent to lead smelters. We believe that discussions of these issues should continue, including through the Definition of Solid Waste network. However, we believe that the past EPA interpretations described above should be adhered to unless and until they are changed at the national level.

### Prior Consistent Guidance

By letter dated March 8, 1995 to the American Foundrymen's Society (copy enclosed), OSW determined that spent foundry sand being reclaimed was subject to regulation. OSW currently is reexamining whether spent foundry sand which undergoes only limited processing prior to being reused on site should continue to be subject to regulation. However, nothing in this reexamination calls into question the Agency's longstanding view that spent materials sent off site for reclamation are subject to regulation.

On page 8 of the March 8, 1995 letter, OSW stated that, "there is one circumstance where spent foundry sands are not solid wastes. Spent foundry sand is not a solid waste under RCRA when legitimately used or reused without reclamation as an effective substitute for a commercial product, 40 CFR § 261.2(e)(1)(ii). It is our understanding that some foundry sands are currently being used as a substitute for virgin silica sand as a fluxing agent in primary copper smelter operations in North America." However, as emphasized to this Region by Paul Borst, one of the authors of the letter (with whom this Region has consulted), this exemption was stated as applying only if there was legitimate reuse without reclamation. In contrast, in the situation inquired about in your letter, any reuse will occur along with reclamation.

That the current company's foundry sand is 32% copper and is to be reclaimed also distinguishes this situation from that addressed in this Region's regulatory interpretation to the NHDES dated March 4, 1994, involving foundry sand that contained only 2-5% copper which was not going to be reclaimed. Rather, the situation inquired about is similar to that about which this Region and the NHDES consulted last year, regarding the proposed shipment by the DM Electronics Recycling Corporation (DMC) of CRTs to a smelter for lead reclamation. By letter to DMC dated June 2, 2000, you correctly noted that the CRTs were subject to regulation since they were being sent for reclamation, even if they also were going to be used as a fluxing agent. As explained above, we believe that the same rules that apply when spent CRTs are sent for reclamation of lead should apply when spent foundry sand is sent for reclamation of copper.

### Additional Issue

There may be an additional reason why the foundry sand should not be exempt from regulation. Even if the foundry sand was being sent for reuse as a fluxing agent without reclamation, the reuse would have to be shown to be "legitimate" for the section 261.2(e)(ii) exemption to apply. It is not clear that the proposed reuse of the sand as a fluxing agent has been shown to be "legitimate" in accordance with the criteria set out in the April 26, 1989 Memorandum from then OSW Director Sylvia Lowrance (Lowrance Memorandum).

It should be emphasized that the Region is not making any determination on this issue. The Region does not have the company's request in front of us or the State's complete file. Also, the Region has not sought to resolve this issue since, for the reasons explained above, it is our opinion that the foundry sand will be subject to regulation whether or not its proposed use as a

fluxing agent is "legitimate."

However, we note that all of the criteria in the Lowrance Memorandum would need to be considered to determine whether the proposed reuse is "legitimate." In particular, the following issues would need to be addressed. First, the State would need to determine whether the smelter will pay the foundry for the sand or the foundry will need to pay the smelter to take the sand. If the foundry must pay the smelter to take the sand, the foundry would need to address the perceived conflict between classifying the sand as an effective substitute for a product and having to pay the smelter to take the "product." See Lowrance Memorandum, criteria (3). At minimum, the foundry and smelter would need to demonstrate that the smelter would decrease purchases of an equivalent amount of virgin sand when using the foundry sand, i.e., that the foundry sand truly would take the place of another product. See also Lowrance Memorandum, criteria (1). This is a particular concern here since the percentage of silica sand in the company's spent material (60%) is below the percentages typically found in spent foundry sand (80 - 90% range). Second, the foundry would need to address how the spent sand would be handled throughout its life cycle, if exempted from regulation. If the sand was mishandled (e.g., stored on the ground), this would be inconsistent with its claimed status as a valuable product. See Lowrance Memorandum, criteria (5). Finally, the foundry would need to address the "toxics along for the ride" issue raised by the fact that the spent sand differs from virgin silica in that it contains high quantities of lead. See Lowrance Memorandum, criteria (1) and (6). In particular, the foundry and smelter would need to document whether the lead content in the smelter's slag would be significantly affected as a result of using a fluxing agent containing lead (and not reclaiming the lead). In that regard, it also would be appropriate for the State to further examine the claim that any lead contained in the sand will be rendered unleachable as a result of the smelting process. It is not clear that smelting processes uniformly produce slag which passes the TCLP test for lead.

### Conclusions

In line with the guidance provided above, the foundry will need to follow hazardous waste management requirements in storing and shipping the sand, including all applicable requirements regarding foreign shipments and the use of a hazardous waste manifest. However, this does not preclude the foundry from sending the sand to the Canadian smelter, with the continued approval of the Canadian government.

If the NHDES believes that regulatory relief is appropriate for foundry sand heading for both reuse and reclamation, it should consult further with this Region about whether the NHDES could grant a variance consistent with 40 CFR §§ 260.30 and 260.31. The NHDES will have the authority to grant such variances for Toxicity Characteristic (TC) as well as non-TC wastes, once it obtains authorization of its TC Rule. However, it may be appropriate to limit consideration of any variances to situations where lead is being reclaimed. It is not clear that sending spent sand to a copper smelter is an environmentally preferable outcome which should be encouraged by reducing regulation, given that the sand's lead ends up disposed with the smelter's slag.

For CRTs being sent to smelters, regulatory relief should be provided once the NHDES completes its plan to include CRTs in its Universal Waste Rule. Keeping streamlined UWR regulations in place seems preferable to determining that there is a total exemption.

If you have any questions regarding this letter, please do not hesitate to contact either Stephen Yee of the Hazardous Waste Unit, at (617) 918-1197 or Jeffry Fowley of the Office of Regional Counsel at (617) 918-1094.

Sincerely,

A handwritten signature in black ink, appearing to read "Marvin Rosenstein", with a long horizontal flourish extending to the right.

Marvin Rosenstein, Chief  
Chemicals Management Branch

Enclosures

cc: G. Gosbee, Chief, Hazardous Waste Unit, EPA  
K. Rota, Chief, RCRA Enforcement Unit, EPA  
M. Hoagland, Chief, RCRA Corrective Action Unit, EPA  
J. Miller, Chief, Waste Branch, MADEP  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC

Faxback 13539

9441.1992(13)

RCRA/Superfund/OUST Hotline Monthly Report Question

May 1992

2. Secondary Materials Used as Effective Substitutes for Commercial Products

Section 261.2(e)(1) excludes certain recycled secondary materials from the definition of solid waste. Section 261.2(e)(1)(ii) excludes materials which are recycled by being used or reused as effective substitutes for commercial products. Can a material that must be reclaimed prior to use or reuse as an effective substitute for a commercial product qualify for the exclusion in 261.2(e)(1)(ii)?

No, this exclusion applies only to materials which are used or reused without prior reclamation. The January 4, 1985, Federal Register (50 FR 619) discusses this exclusion and states that "[w]hen secondary materials are directly used as substitutes for commercial products...these materials are functioning as raw materials...and, thus, are not wastes." A material that must be reclaimed prior to use (or reuse) as an effective substitute for a commercial product is not being directly used (or reused), and so would not qualify for this exclusion.

12/6

Faxback 11900

9441.1995(10)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20469

March 8, 1995

Mr. Christian M. Richter  
Washington Representative  
American Foundrymen's Society  
900 2nd St. N.E. Suite 109  
Washington D.C. 20002

Dear Mr. Richter:

I am writing in response to your letter to me of October 31, 1994, and as a follow-up to the November 1994 and February 28, 1995 meetings between representatives for the American Foundrymen's Society (AFS) and the U.S. Environmental Protection Agency (EPA) on the regulatory status of spent foundry sand under the Resource Conservation and Recovery Act (RCRA). Thank you for reviewing with us the use and role of sands in the foundry process and reiterating the industry's concerns.

The two RCRA regulatory concerns at issue which you have raised are: 1) whether spent foundry sands are solid and hazardous wastes within the sand loop and at what point do they become wastes, and 2) what is the regulatory status under RCRA of the type of thermal reclamation units discussed at our meeting, which are used to remove clay and resin binders from spent sands prior to reuse in mold making. The opinions expressed below are based on your general factual description and thus necessarily represent our initial conclusions, not final agency action. In addition, nothing in this letter should be considered to compromise, or to address the merits of any enforcement actions.

With regard to the first issue, for reasons stated below, EPA believes that spent foundry sands are solid wastes at the point at which the mold is broken and the sand is separated from the casting at the shakeout table. These solid wastes are also hazardous wastes if they exhibit the characteristic of toxicity for lead or other hazardous constituents specified at 40 CFR 261.24. Moreover, the process of separating bits and pieces of metal, fines, core sand butts and other clumps of mold sand at the shakeout table and screen to create return sand (for reuse in the

moldmaking process) is a reclamation process. As we stressed at our last meeting, because the recycling process is generally exempt from RCRA regulation, the Agency believes that there is little or no regulatory impact under RCRA from this view for those foundry sands within the sand loop which are reclaimed through non-thermal processes. In particular, the Agency believes that the use of non-thermal reclamation processes for foundry sands will not subject foundries to any substantive requirements. Regarding the regulatory status of the type of thermal reclamation units discussed at our November meeting, EPA believes that these units are incinerators, which are subject to RCRA Subpart O standards under 40 CFR Parts 264 and 265.

The balance of this letter: 1) describes the foundry process and foundry sand management, 2) presents the basis for our regulatory analysis, 3) states EPA's belief with regard to foundry sand waste management, and 4) describes the next steps to be taken to assure proper compliance in the foundry industry with RCRA regulations and to reach a common understanding between EPA and AFS members.

## 1. Description of Foundry Processes/ Overview of Spent Foundry Sands Management

### A. Description of Foundry Processes

Based on prior correspondence from representatives of AFS member companies and materials submitted to EPA by AFS during our November 16th meeting, our understanding of the typical foundry process is as follows. Foundries are facilities where ferrous and non-ferrous metal castings are produced. The metal castings are produced from sand molds and cores which have been formed in a separate moldmaking process. The sand molds and cores are formed by molding sand together with clay or resin binders. Organic solvents may be added to the resins to reduce their viscosity. After the metal castings are poured into the molds and cooled, the molds are broken to remove the castings at a table referred to as a "shakeout table".

In the process of breaking the molds, several things occur simultaneously. First, the casting is separated from the broken mold and core and sent off for cleaning. Second, sand fines become airborne and are typically collected under negative pressure in a vacuum aspiration tube located proximately to the shakeout table. These fines may be wetted and deposited into a tank where iron is added in an attempt to fix lead in the fines prior to disposing of them in municipal landfills or on-site industrial landfills. Third, the broken molds are placed into a reclamation process consisting of a vibratory drum with perforations and a series of

conveyors and screens.

Sand (hereafter referred to as return sand) which passes through the drum and screens is returned to the moldmaking process to be used to make new molds. The entire process of making sand molds and reclaiming return sand for producing new molds is referred to as the sand loop.

Some chunks of sand from the broken molds and cores cannot be broken down and are too large to fit through the drum/screening process. This sand together with bits and chunks of metal (referred to as tramp metal), is removed from the screening process and sent to a ball mill where the mixture is milled and remaining metal is removed for reinsertion into the casting process or sold for recycling. Iron may be added to the clumps of sand prior to or during the milling process in an attempt to fix lead in the sand. The milled sand is then sent to a municipal or on-site industrial landfill.

## B. Overview of Spent Foundry Sand Management

As you mention in your incoming letter to EPA, AFS estimates that 100 million tons of sand used to make molds in the ferrous and non-ferrous foundry industry and that approximately 94 percent of these sands are reused within the industry. In an April 26, 1993 article of American Metals Market, AFS is quoted as estimating that only about 4 percent, or 240,000 tons of the estimated 6 million tons of discarded foundry sand are hazardous waste. The article indicates that this is particularly a problem with manufacturers of leaded brass. However, Dan Twarog, AFS Director of Research, indicated in this article that contamination of foundry sands "is not a huge problem".

Based on data submitted to EPA by brass foundries, most spent foundry sands which are hazardous wastes are classified as such because they exhibit the characteristic of toxicity for lead, D008. In addition, one brass foundry exporting its sands for use in Canada reported that the sand exhibited the characteristic of toxicity for cadmium, D006.

## 2. RCRA Subtitle C Regulatory Status of Spent Foundry Sands and Thermal Reclamation Unit

As stated above, AFS has raised two particular issues for EPA's consideration: 1) is spent foundry sand a solid waste and when is it generated, and 2) what is the regulatory status of thermal reclamation units for spent foundry sand. Each of these issues is discussed in turn.

## A. Regulatory Status Under RCRA of Spent Foundry Sands and the Sand Reclamation Loop

Regarding the first issue, based on prior regulatory determinations, as well as the information you presented about typical foundry practices, it appears that spent foundry sands are "spent materials" being "reclaimed," and are therefore solid wastes. This determination is made based on the properties of the sand and the nature of typical foundry sand reclamation activities.

Used foundry sands are generated as solid wastes after being separated from the castings at the shakeout table. At this point, the used sand contains contaminants, such as chunks of brass, fines, and hard lumps of sand, that must be removed from the sand prior to its reuse in the making of molds. Thus, the used sand is a "spent material" because it is no longer fit for its original use without further processing. 40 CFR 261.1(c)(1).

The subsequent process of separating and screening return sand (sand which is fit to be reused in mold making), core butts (clumps of sand from the core molds which are bonded with resin binders and are unfit for mold making without further processing), lumps of clay-coated mold sand, fines, and metal pieces appears to be a "reclamation process." 40 CFR 261.1(c)(4).

When the spent sands enter the shakeout process, they are reclaimed through regeneration, which involves the removal of contaminants including core sand butts, fines; tramp metal and other clumps of sand too large to fit through the screens. As a spent material being reclaimed, the spent foundry sand constitutes a solid waste. Indeed, the Agency has so held on very similar facts. In the Matter of Lee Brass Company, RCRA Appeal No. 87-12 (August 1, 1989). EPA also determined on January 6, 1986 that spent foundry sands being reclaimed are solid and hazardous wastes, in correspondence to Mr. John Robbins, a project chemist for Kohler Co., about one year after the final rule amending the definition of solid waste was promulgated (see enclosure).

Once the return sands are completely reclaimed, removed from the reclamation process, and are being returned to the moldmaking process, they cease to be wastes and are no longer under RCRA jurisdiction. 40 CFR 261.3(c)(2)(i). The portion of spent sand which is not returned to the mold making process remains a solid and (if hazardous) hazardous waste.

Because this mechanical process of screening and separating hazardous spent foundry sand is a reclamation process, it is generally exempt from regulation under RCRA. 40 CFR 261.6(c)(1)

(exempting actual recycling processes from regulation unless otherwise specified).

However, with respect to the portion of foundry sands that is removed from the reclamation process and is not beneficially reused, foundries remain subject to all applicable RCRA standards for managing these materials under 40 CFR Part 262. These standards include manifesting and standards for storage in tanks, containers, drip pads and containment buildings, as set out in Section 262.34. In addition transporters of these hazardous wastes are subject to 40 CFR Part 263. Furthermore, foundries that treat these hazardous wastes in conformance with these less-than-90 day storage provisions would not be subject to RCRA permitting requirements. Our expectation is that operating foundries should be able to operate in ways such that they do not trigger requirements for RCRA permits pursuant to the Federal regulations.

EPA's views about the point of generation for jurisdiction purposes do not imply that we believe that the non-thermal reclamation process of screening and separating sand following the separation of the casting requires a RCRA Subtitle C permit. When this screening and separation of sand is part of a reclamation process, it is exempt from RCRA Subtitle C regulation. 40 CFR 261.6(c)(1). Nor does this opinion imply any belief on the part of the Agency that state regulation under Subtitle D of RCRA is warranted for nonhazardous foundry sands undergoing reclamation. The scope of our regulatory concern is limited to foundry sands which are considered characteristically hazardous under Subtitle C of RCRA.

Notwithstanding these points, EPA cannot agree that the point of generation occurs after the sand mold is separated from the casting. The AFS interpretation, that foundry sands are generated after processing at the shakeout table, would have two adverse effects that are potentially damaging to human health and the environment.

First, some foundries would be able to add iron to spent foundry sands which are destined for land disposal (including both clumps of sand molds and sand cores as well as sand fines that are collected from emissions from the shakeout table) and argue that the spent sands were solid wastes, but never hazardous waste. This argument would be based on the assumption that they were "generated" after the addition of iron, possibly masking the toxicity characteristic for lead. It would follow that these foundries would not be subject to standards required for hazardous waste generators treating characteristic wastes in tanks, notwithstanding that they are engaged in a classic treatment activity. Moreover, these iron-treated sands would not be subject



occurs in the fluidized bed. As a result, the organic resins, binders and solvents are destroyed.

Under the Agency's regulatory regime, thermal treatment devices are classified as either boilers, industrial furnaces, incinerators, other interim status thermal treatment units, or miscellaneous permitted treatment units. Definitions of a boiler, industrial furnace, and incinerator are provided in 40 CFR 260.10. If a thermal treatment device does not meet the definition of boiler or industrial furnace, it is classified as an incinerator if it uses controlled flame combustion; if it does not, it is either an interim status thermal treatment unit (Part 265 Subpart P) or a miscellaneous permitted treatment unit (Part 264 Subpart X).

The thermal sand reconditioning device you presented to us is not a boiler because it does not recover and export energy. It does not meet the definition of an industrial furnace because it is not one of the enumerated devices listed as an industrial furnace in Section 260.10. Thus, our analysis focuses on whether the device should be regarded as either an incinerator or a miscellaneous/other treatment unit.

Given that the device uses controlled flame combustion to burn natural gas and that the combustion gases are exhausted into the combustion chamber containing the spent sand, the device should be classified as an incinerator. Among other considerations, although not dispositive in themselves, are: (1) the temperature in the combustion chamber would be carefully controlled to what is claimed to be the optimum combustion temperature of the resin contaminants; and (2) the temperature would be controlled by modulating the natural gas burner in the firebox, or, in some designs, burners in the combustion chamber itself.

AFS has maintained that because, in its opinion, sand which is part of the sand loop is not discarded and therefore not a solid waste, that spent foundry sand which is destined for a thermal reconditioning unit is also not a solid waste. For this reason, AFS maintains that thermal recondition units of the type described in our November 16 meeting are not incinerators, but rather part of a manufacturing process used to recondition sand for reuse within the mold making process.

For the reasons stated above, the AFS argument that spent foundry sand is not a solid waste does not appear to be sound. To reiterate, the sand from the broken mold is not fit for its original use as a mold without substantial reprocessing. If the sand is reprocessed through thermal reconditioning rather than or

in addition to the physical screening and separation process, it is all the more part of the waste management problem because of the fact that incinerators are a type of treatment technology which clearly engages in waste management. In this regard, the placement of hazardous foundry sand into a thermal combustion unit is analogous to the placement of secondary materials into surface impoundments. Both activities may result in the release of hazardous waste to the environment if improperly managed. AFS' argument that this type of thermal reconditioning unit is simply reconditioning sand for reuse in the moldmaking process ignores the fact that the organic resins, binders and solvents used to construct the molds are destroyed in the incineration process. The potential release of products of incomplete combustion, such as dioxin and furans, as well as volatile metals such as lead and cadmium, makes clear that management activities using these units can be viewed as part of the waste disposal problem. In addition, the build up of metallic lead in the resulting sand in a more leachable form likewise supports this conclusion. Thermal waste treatment units such as incinerators, like surface impoundments, are a central focus of the RCRA program. RCRA Section 3004(o)(2). As such, these units are clearly within RCRA jurisdiction and materials placed into them can be viewed as discarded and therefore solid wastes. AMC II, 907 F.2d at 1186.

### C. Other RCRA Regulatory Issues Regarding Spent Foundry Sands

The Agency notes that there is one circumstance when spent foundry sands are not solid wastes. Spent foundry sand is not a solid waste under RCRA when legitimately used or reused without reclamation as an effective substitute for a commercial product. 40 CFR 261.2(e)(1)(ii). It is our understanding that some foundry sands are currently being used as a substitute for virgin silica sand as a fluxing agent in primary copper smelting operations in North America. Please be aware, however, that under Section 3006 of RCRA individual States can be authorized to administer and enforce their own hazardous waste programs in lieu of the Federal program. When States are not authorized to administer their own program, the appropriate EPA Regional office administers the program and is the appropriate contact for any case-specific determinations. Please note as well that under Section 3009 of RCRA, States retain authority to promulgate regulatory requirements that are more stringent than Federal regulatory requirements.

### 3. EPA Concerns About Environmental Effects of Foundry Sand Management

Please understand that the potential environmental concern is not with sand per se. Rather, EPA is concerned that in some

foundries, the used sand mixtures contain sufficient hazardous constituents (e.g., lead, cadmium, toxic organic compounds) to pose a threat to human health and the environment if managed improperly. EPA has three major environmental concerns regarding management of spent foundry sand: 1) landfill disposal of spent foundry sand, including treatment with iron prior to land disposal, 2) thermal processing of spent foundry sand, and 3) the storage and actual management practices for spent foundry sands prior to disposal.

#### A. Landfill Disposal of Spent Foundry Sands; Treatment of Lead-Contaminated Sand With Iron Filings

As discussed in our meeting and indicated in prior correspondence on behalf of AFS member companies, some portion of spent sand is continuously removed from the sand loop in some foundries and disposed of in landfills. For those foundries whose sand contains hazardous constituents, such as lead, cadmium and organics, the Agency has a strong interest in seeing that these sands are properly managed. Left untreated, lead-contaminated sands may result in releases to groundwater, possibly threatening nearby drinking water wells. Improper disposal of untreated hazardous waste has historically led to many landfills becoming Superfund sites. Thus, when foundry sands exhibiting the hazardous characteristic for lead are land disposed, these materials must be properly treated and disposed of in appropriate facilities in order to prevent the creation of future hazardous waste remediation sites.

Effective treatment for hazardous waste being land disposed must assure the long-term immobilization of hazardous constituents to minimize potential short and long term threats to human health and the environment. RCRA Section 3004(m). We understand that some foundries attempt to treat their hazardous waste foundry sand with iron filings prior to land disposal, in an effort to reduce the leachability of the hazardous constituents (typically lead) so that the waste can be land disposed. EPA is concerned, however, that the addition of iron filings to lead-contaminated foundry sands is ineffective as a long-term treatment method and that it could constitute impermissible dilution under 40 CFR 268.3.

In developing the Land Disposal Restriction program in the Hazardous and Solid Waste Amendments of 1984 (HSWA), Congress stated that only dilution that occurs during the normal manufacturing process may be taken into account in setting section 3004(m) treatment standards. Senate Report No. 284. 98th Cong. 1st Sess. at 17. Since the addition of iron occurs only to stabilize lead in the spent sand prior to disposal, it does not appear to be part of a normal production process.

## B. Thermal Reclamation of Spent Foundry Sands

Second, we understand that there is an increasing trend in the industry towards using a type of thermal reclamation unit that involves combustion of the organic constituents in the foundry sand mixture. Combustion of hazardous waste is, of course, a significant Agency concern. See U.S. Environmental Protection Agency Strategy For Hazardous Waste Minimization and Combustion, EPA/530-R-94 04, November 1994. The Agency is concerned about the potential for lead and other metals to be emitted from the units. Toxic organics, including products of incomplete combustion such as dioxins, also may be emitted. In addition, we understand that the thermal treatment of sands may result in increased leachability of lead in sand due to the build up of metallic lead in the sand.

## C. Storage Prior to Disposal and Other Management of Spent Foundry Sands

Third, we did not discuss in the meeting in any depth what are the material management practices within the industry. An EPA representative did, however, note that storage of used sands that exhibit a hazardous characteristic because of lead from the metal castings could pose classic waste management types of risks, depending on how the material is stored and handled.

We believe that these three types of environmental concerns address your question of how we could consider the sand being reclaimed for further on-site use to be part of the waste management problem. These concerns underlie the existing regulatory structure which we believe classifies the sands after their use in the casting process as a "spent material," which is being "reclaimed" prior to reuse.

## 4. Compliance Assurance and Industry Outreach

We understood you to say to us that some members of the industry do not think of the foundry sands being reconditioned and reclaimed for reuse on-site- as a "waste" being managed at the foundry. If that is the case, there may be a need to work with you to change practices within the industry. We hope that the American Foundrymen's Society and other groups would be willing to help us with that task and that we can organize the resources within EPA to work with you on bringing about that change.

## Conclusion

If you have any questions regarding the status of foundry sands as solid and hazardous wastes under RCRA, please call

Michael Petruska of my staff at (202) 260 8551. If you have any questions about the status of thermal reclamation units under RCRA as incinerators, please contact Robert Holloway of my staff at (703) 308-8461. Again, we appreciate your patience in arranging for the meeting and your coming to Washington to discuss the issue with us.

Sincerely,

Michael Shapiro, Director  
Office of Solid Waste

Enclosure

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Attachment  
-----

American Foundrymen's Society Inc.  
900 2nd Street, N.E.  
Suite 109  
Washington, D.C. 20002

October 31, 1994

Michael Shapiro, Director  
Office of Solid Waste, M2101  
USEPA Waterside Mall  
401 M Street S.W.  
Washington, D.C. 20410

Dear Mr. Shapiro:

Representatives of the American Foundrymen's Society (AFS) would like to meet with you and David Bussard to discuss several critical policy issues raised by recent Region 6 enforcement actions against foundries. We are concerned that Region 6 has seriously misapplied current USEPA regulatory policy regarding solid waste and recycling under the Resource Conservation and Recovery Act (RCRA).

## I. BACKGROUND

EPA Region 6 officials have targeted two brass and bronze foundries for enforcement action under RCRA. Region 6 contends that one of the industry's primary raw materials -- sand -- when reused in an ongoing production process on-site, is a solid waste. It is our understanding that the set of facts in each of these cases is unique.

However, the two cases raise important questions regarding the

agency's application of RCRA solid waste and recycling policy to metalcasting production, and potentially other manufacturing processes as well.

A vast majority of the nearly 3200 U.S. foundries cast metals -- such as iron, steel, and various nonferrous alloys -- in sand molds. The industry as a whole reuses in production nearly 94 percent of the 100 million tons of total sand throughput annually, which translates into an impressive recovery rate of 94 percent. The ability to repeatedly reuse sand to make world-class castings saves virgin materials, reduces industry costs, and preserves the nation's diminishing landfill capacity.

## II. POLICY RAMIFICATIONS

Sand reuse by foundries -- a conventional industry practice -- is an integral part of the production process. Not only is regulatory control of this extremely low-risk component of production unnecessary, but from a practical standpoint, constraining or regulating sand reuse under RCRA only encourages disposal -- not recovery -- of high volumes of raw material.

The Region 6 approach to sand reuse under the RCRA regulatory framework is a wholly novel interpretation of the law. If allowed to stand, it could have dramatic consequences for foundries nationwide, particularly small facilities ( 80 percent of the nation's foundries employ fewer than 100 employees).

## III. ACTION NEEDED

We do recognize the agency's interest in constraining certain recycling practices and mismanagement of materials. Accordingly, we would like to discuss with you the regulatory status of foundry sand at various points in the metal casting process. The industry has never before encountered Region 6's peculiar interpretation of RCRA during the history of its involvement with the agency's solid and hazardous waste program. In fact, it has never occurred to us, nor EPA staff with whom we have interacted, that sand is a solid waste when reused in ongoing, on-site production of molds to make castings.

The potential consequences for the foundry industry, as well as for the agency's waste program, warrant a thorough airing of this issue at agency headquarters. Ours is truly a perfect illustration of the ambiguity and confusion inherent in current solid waste and recycling policy under RCRA.

Your consideration of these issues is greatly appreciated. We have sent a similar letter to Mr. Bussard, and will be contacting your office to arrange a convenient date and time to meet.

Sincerely,

Christian M. Richter  
AFS Washington Representative

cc: David Bussard, EPA Characterization and Assessment Division  
Elliot Laws, Asst. Administrator for Solid Waste and Emergency Response  
Leon Hampton, EPA Office of Small and Disadvantaged Business  
Utilization  
Karen Brown, EPA Small Business Ombudsman  
Mike Stahl, EPA Office of Enforcement

Faxback 11426

9441.1989(19)

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

APR 26 1989

MEMORANDUM

SUBJECT: F006 Recycling

FROM: Sylvia K. Lowrance, Director  
Office of Solid Waste (OS-300)

TO: Hazardous Waste Management Division Directors  
Regions I-X

It has come to the attention of EPA Headquarters that many of the Regions and authorized States are being requested to make determinations on the regulatory status of various recycling schemes for F006 electroplating sludges. In particular, companies have claimed that F006 waste is being recycled by being used as: (1) an ingredient in the manufacture of aggregate, (2) an ingredient in the manufacture of cement, and (3) feedstock for a metals recovery smelter. The same company may make such requests of more than one Region and/or State. Given the complexities of the regulations governing recycling vs. treatment and the definition of solid waste, and the possible ramifications of determinations made in one Region affecting another Region's determination, it is extremely important that such determinations are consistent and, where possible, coordinated.

Two issues are presented. The first issue is whether these activities are legitimate recycling, or rather just some form of treatment called "recycling" in an attempt to evade regulation. Second, assuming the activity is not sham recycling, the issue is whether the activity is a type of recycling that is subject to regulation under sections 261.2 and 261.6 or is it excluded from our authority.

With respect to the issue of whether the activity is sham recycling, this question involves assessing the intent of the owner or operator by evaluating circumstantial evidence, always

-2-

a difficult task. Basically, the determination rests on whether the secondary material is "commodity-like." The main environmental considerations are (1) whether the secondary material truly has value as a raw material-product (i.e., is it likely to be abandoned or mismanaged prior to reclamation rather

than being reclaimed?) and (2) whether the recycling process (including ancillary storage) is likely to release hazardous constituents (or otherwise pose risks to human health and the environment) that are different from or greater than the processing of an analogous raw material/product. The attachment to this memorandum sets out relevant factors in more detail.

If the activity is not a sham, then the question is whether it is regulated. If F006 waste is used as an ingredient to produce aggregate, then such aggregate would remain a solid waste if used in a manner constituting disposal (e.g., road-base material) under sections 261.2(c)(1) and 261.2(e)(2)(i) or if it is accumulated speculatively under section 261.2(e)(2)(iii). Likewise, the F006 "ingredient" is subject to regulation from the point of generation to the point of recycling. The aggregate product is, however, entitled to the exemption under 40 CFR 266.20(b), as amended by the August 17, 1988, Land Disposal Restrictions for First Third Scheduled Wastes final rule (see 53 FR 31197 for further discussion). However, if the aggregate is not used on the land, then the materials used to produce it would not be solid wastes at all, and therefore neither those materials nor the aggregate would be regulated (see section 261.2(e)(1)(i)).

Likewise, cement manufacturing using F006 waste as an ingredient would yield a product that remains a solid waste if it is used in a manner constituting disposal, also subject to section 266.20(b). There is an additional question of whether the cement kiln dust remains subject to the Bevill exclusion. In order for the cement kiln dust to remain excluded from regulation, the owner or operator must demonstrate that the use of F006 waste has not significantly affected the character of the cement kiln dust (e.g., demonstrate that the use of F006 waste has not significantly increased the levels of Appendix VIII constituents in the cement kiln dust leachate). [NOTE: This issue will be addressed more fully in the upcoming supplemental proposal of the Boiler and Industrial Furnace rule, which is pending Federal Register publication.]

For F006 waste used as a feedstock in a metals recovery smelter, the Agency views this as a recovery process rather than use as an ingredient in an industrial process and, therefore, considers this to be a form of treatment that is not currently regulated (see sections 261.2(c) and 261.6(c)(1)). Furthermore, because this is a recovery process rather than a production process, the F006 waste remains a hazardous waste (and must be

-3-

managed as such prior to introduction to the process), and the slag from this process would normally be considered a "derived from" F006 waste. However, for primary smelters, the slag may be considered subject to the Bevill exclusion provided that the owner or operator can demonstrate that the use of F006 waste has not significantly affected the hazardous constituent content of the slag (i.e., make a demonstration similar to the one discussed above for the cement kiln dust). [NOTE: In the

supplemental proposal of the Boiler and Industrial Furnace rule noted above, the Agency will be proposing a definition of "indigenous waste" based on a comparison of the constituents found in the waste to the constituents found in an analogous raw material. Should the F006 waste meet the definition of an "indigenous waste," the waste would cease to be a waste when introduced the process and the slag would not be derived from a hazardous waste.]

Also, you should be aware that OSW is currently reevaluating the regulations concerning recycling activities, in conjunction with finalizing the January 8, 1988 proposal to amend the Definition of Solid Waste. While any major changes may depend on RCRA authorization, we are considering regulatory amendments or changes in regulatory interpretations that will encourage on-site recycling, while ensuring the protection of human health and the environment.

Headquarters is able to serve as a clearinghouse to help coordinate determinations on whether a specific case is "recycling" or "treatment" and will provide additional guidance and information, as requested. Ultimately, however, these determinations are made by the Regions and authorized States. Attached to this memorandum is a list of criteria that should be considered in evaluating the recycling scheme. Should you receive a request for such a determination, or should you have questions regarding the criteria used to evaluate a specific case, please contact Mitch Kidwell, of my staff, at FTS 475-8551.

Attachment

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#### CRITERIA FOR EVALUATING WHETHER A WASTE IS BEING RECYCLED

The difference between recycling and treatment is sometimes difficult to distinguish. In some cases, one is trying to interpret intent from circumstantial evidence showing mixed motivation, always a difficult proposition. The potential for abuse is such that great care must be used when making a determination that a particular recycling activity is to go unregulated (i.e., it is one of those activities which is beyond the scope of our jurisdiction). In certain cases, there may be few clear-cut answers to the question of whether a specific activity is this type of excluded recycling (and, by extension, that a secondary material is not a waste, but rather a raw material or effective substitute); however, the following list of criteria may be useful in focusing the consideration of a specific activity. Here too, there may be no clear-cut answers, but, taken as a whole, the answers to these questions should help draw the distinction between recycling and sham recycling or treatment.

(1) Is the secondary material similar to an analogous raw material or product?

Does it contain Appendix VIII constituents not found in the analogous raw material/product (or at higher levels)?

Does it exhibit hazardous characteristics that the analogous raw material/product would not?

Does it contain levels of recoverable material similar to the analogous raw material/product?

Is much more of the secondary material used as compared with the analogous raw material/product it replaces? Is only a nominal amount of it used?

Is the secondary material as effective as the raw material or product it replaces?

(2) What degree of processing is required to produce a finished product?

Can the secondary material be fed directly into the process (i.e., direct use) or is reclamation (or pretreatment) required?

How much value does final reclamation add?

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(3) What is the value of the secondary material?

Is it listed in industry news letters, trade journals, etc.?

Does the secondary material have economic value comparable to the raw material that normally enters the process?

(4) Is there a guaranteed market for the end product?

Is there a contract in place to purchase the "product" ostensibly produced from the hazardous secondary materials?

If the type of recycling is reclamation, is the product used by the reclaimer? The generator? Is there a batch tolling agreement? (Note that since reclaimers are normally TSDFs, assuming they store before reclaiming, reclamation facilities present fewer possibilities of systemic abuse).

Is the reclaimed product a recognized commodity? Are there industry-recognized quality specifications for the product?

(5) Is the secondary material handled in a manner

consistent with the raw material/product it replaces?

Is the secondary material stored on the land?

Is the secondary material stored in a similar manner as the analogous raw material (i.e., to prevent loss?)

Are adequate records regarding the recycling transactions kept?

Do the companies involved have a history of mismanagement of hazardous wastes?

(6) Other relevant factors.

What are the economics of the recycling process?

Does most of the revenue come from charging generators for managing their wastes or from the sale of the product?

Are the toxic constituents actually necessary (or of sufficient use) to the product or are they just "along for the ride."

These criteria are drawn from 53 FR at 522 (January 8, 1988); 52 FR at 17013 (May 6, 1987); and 50 FR at 638 (January 4, 1985).



State of New Hampshire  
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

(603) 271-2900 FAX (603) 271-2456  
May 19, 2000

MAY 30 2000



MAY 30 2000

Mr. Edward K. McSweeney, Associate Director  
Office of Waste Policy  
USEPA Region 1  
1 Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

Dear Mr. McSweeney:

The New Hampshire Department of Environmental Services (NHDES) has received a request for a regulatory determination from a foundry located in New Hampshire. The foundry has a bronze foundry operation that generates spent foundry sand. This foundry sand is hazardous waste for the characteristic of lead at 25 Parts Per Million (PPM) under the Toxicity Characteristic Leaching Procedure. The foundry has proposed delivering this spent foundry sand to Noranda Metallurgy, Inc., Horne Smelter, Rouyn-Noranda, Quebec, Canada (Noranda) as an effective substitute for a commercial product (i.e., silica flux) per 40 CFR 261.2(e)(1)(ii).

The foundry supplied an assay of the spent foundry sand to confirm that Noranda could use this spent foundry sand as a substitute for silica flux. The spent foundry sand is reported to contain 60% silica sand, 32% copper, 2% bentonite clay, 2,000 ppm total lead and 2,500 ppm total zinc. The foundry applied documentation from Noranda that this material is an effective substitute in their smelting operation as a fluxing agent and would be directly reused without any preparation. The foundry supplied documentation from the Canadian Ministry of the Environment approving this material as a fluxing agent. In addition, the foundry provided documentation that the toxics (lead) contained in the spent foundry sand will be vitrified and unleachable as a result of the smelting process.

Noranda is a primary Copper Smelter, as a primary copper smelter, the copper that is contained in the bronze (32% of the total weight) will be reclaimed. NHDES is requesting EPA's interpretation on the following separate scenarios to clarify the recycling of spent foundry sand issue:

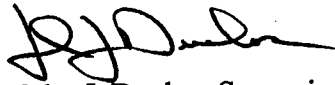
1. The spent foundry sand is sent to a primary copper smelter as an effective substitute for silica flux with reclamation of the copper but no reclamation of the lead. In this scenario would the spent foundry sand be considered a solid waste?
2. As an alternative, the spent foundry sand is sent to a primary lead smelter as an effective substitute for silica flux with reclamation of the lead. In this scenario would the spent foundry sand be considered a solid waste?
3. If the above two scenarios were sent to a secondary smelter, would this change EPA's interpretations?

Mr. McSweeney  
Page 2

DES

Should you have any questions, please feel free to contact David Bowen, Waste Management Specialist or myself at (603) 271-2942.

Sincerely,



John J. Duclos, Supervisor  
Hazardous Waste Compliance Section  
Waste Management Division

RCRA/DB

cc: G. Lombardo, EPA/New England  
J. Miller, Chief, Waste branch, MADEP  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

176

March 16, 2001

John J. Duclos, Supervisor  
Hazardous Waste Compliance Section  
Waste Management Division  
N.H. Department of Environmental Services  
6 Hazen Drive  
P.O. Box 95  
Concord, N.H. 03302-0095

Re: Request for Regulatory Interpretation Regarding Spent Foundry Sand

Dear Mr. Duclos:

This is in response to your letter dated May 19, 2000 which requests a Regulatory Interpretation from EPA Region I. In that letter, you state that a foundry in New Hampshire is proposing to ship spent sand to the Noranda Mettallurgy, Inc. Horne Smelter in Quebec, Canada, a primary copper smelter. The sand reportedly contains 60% silica, 32% copper and 2,000 ppm total lead. It fails the Toxicity Characteristic Leaching Procedure (TCLP) test for lead. You state that the foundry has supplied documentation to the New Hampshire Department of Environmental Services (NHDES) that the smelter will use the sand as a fluxing agent (in addition to reclaiming the copper), that the use as a fluxing agent has been approved by the Canadian Ministry of the Environment, and that the lead will be vitrified and rendered "unleachable" as a result of the smelting process. You ask whether the sand should be considered a hazardous waste subject to regulation when shipped to this primary copper smelter for both use as a fluxing agent and reclamation of the copper. You further ask whether it would make any difference if the sand instead was shipped to a primary lead smelter or to a secondary copper or lead smelter.

In our opinion, the spent foundry sand would be subject to regulation as a hazardous waste when shipped to the primary copper smelter for reclamation of the copper, even if also used as a fluxing agent. It also would be subject to regulation if shipped to a primary lead smelter or to a secondary copper or lead smelter for reclamation of either copper or lead even if also used as a fluxing agent.

Explanation of Position

Under 40 CFR § 261.2(e)(1)(ii), a secondary material being "used or reused" as an "effective substitute" for a commercial product is exempt from regulation under certain circumstances. However, this exemption does not apply if the material must be reclaimed before being used or reused. The definition of "used or reused" in 40 CFR 261.1(c)(5)(i) states that use/reuse is not

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occurring "if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials)." As the EPA explained in the RCRA/Superfund/OUST Hotline Monthly Report (May 1992)(copy enclosed), the 40 CFR § 261.2(e)(1)(ii) exemption only applies when materials are functioning as raw materials by being directly used or reused, and "a material that must be reclaimed prior to use (or reuse) as an effective substitute for a commercial product is not being directly used (or reused) and so would not qualify for the exemption."

When components of a hazardous spent material are recovered, the spent material is considered to be "reclaimed" (see 40 CFR § 261.1(c)(4)) and is subject to regulation. 40 CFR § 261.2(c)(3) and Table 1. This is so whether it is a hazardous waste component like lead or a non-hazardous waste component like copper that is being recovered. The EPA regulations state that a material is "reclaimed" if it is "processed to recover a usable product." 40 CFR § 261.1(c)(4). Such processing occurs whether it is a hazardous or a non-hazardous component that is being recovered.

Also, spent materials being reclaimed are regulated whether they are sent to primary or secondary smelters. Spent materials sent to operations such as secondary smelters which engage generally in reclamation clearly are subject to regulation. In adopting its current regulations regarding recycling, the EPA also interpreted its regulations to mean that certain secondary materials including spent materials should be regulated when sent to primary smelters. The EPA rejected the argument that all secondary materials sent to primary smelters for material recovery should not be regulated since such materials would be substitutes for normal raw material feedstock. Rather, the EPA stated, "when a secondary material is to be recovered in an operation different from the one in which it was generated, we believe there is a continuum with secondary materials becoming more waste-like the more the recovery operation differs from the original process, and the more physically removed the recovery operation is from the original process." 50 Fed. Reg. 614, 640 (January 4, 1985).

Finally, we are advised that the EPA Office of Solid Waste (OSW) consistently has taken the position that spent materials which are both reused (e.g., as a fluxing agent) and reclaimed (e.g., for recovery of lead or copper) are subject to regulation. When foundry sand is sent for reclamation, the overall transaction has significant aspects of waste management, even if the sand also is useable as a fluxing agent. This is particularly so when foundry sand is sent to a copper smelter, since this transaction involves using the smelter to treat and dispose of the sand's lead as well as to recover the copper.

We recognize that arguments have been advanced in favor of changing EPA's interpretations so as to exempt from regulation materials which are both reused and reclaimed, or materials sent to primary smelters or materials sent to lead smelters. We believe that discussions of these issues should continue, including through the Definition of Solid Waste network. However, we believe that the past EPA interpretations described above should be adhered to unless and until they are changed at the national level.

### Prior Consistent Guidance

By letter dated March 8, 1995 to the American Foundrymen's Society (copy enclosed), OSW determined that spent foundry sand being reclaimed was subject to regulation. OSW currently is reexamining whether spent foundry sand which undergoes only limited processing prior to being reused on site should continue to be subject to regulation. However, nothing in this reexamination calls into question the Agency's longstanding view that spent materials sent off site for reclamation are subject to regulation.

On page 8 of the March 8, 1995 letter, OSW stated that, "there is one circumstance where spent foundry sands are not solid wastes. Spent foundry sand is not a solid waste under RCRA when legitimately used or reused without reclamation as an effective substitute for a commercial product, 40 CFR § 261.2(e)(1)(ii). It is our understanding that some foundry sands are currently being used as a substitute for virgin silica sand as a fluxing agent in primary copper smelter operations in North America." However, as emphasized to this Region by Paul Borst, one of the authors of the letter (with whom this Region has consulted), this exemption was stated as applying only if there was legitimate reuse without reclamation. In contrast, in the situation inquired about in your letter, any reuse will occur along with reclamation.

That the current company's foundry sand is 32% copper and is to be reclaimed also distinguishes this situation from that addressed in this Region's regulatory interpretation to the NHDES dated March 4, 1994, involving foundry sand that contained only 2-5% copper which was not going to be reclaimed. Rather, the situation inquired about is similar to that about which this Region and the NHDES consulted last year, regarding the proposed shipment by the DM Electronics Recycling Corporation (DMC) of CRTs to a smelter for lead reclamation. By letter to DMC dated June 2, 2000, you correctly noted that the CRTs were subject to regulation since they were being sent for reclamation, even if they also were going to be used as a fluxing agent. As explained above, we believe that the same rules that apply when spent CRTs are sent for reclamation of lead should apply when spent foundry sand is sent for reclamation of copper.

### Additional Issue

There may be an additional reason why the foundry sand should not be exempt from regulation. Even if the foundry sand was being sent for reuse as a fluxing agent without reclamation, the reuse would have to be shown to be "legitimate" for the section 261.2(e)(ii) exemption to apply. It is not clear that the proposed reuse of the sand as a fluxing agent has been shown to be "legitimate" in accordance with the criteria set out in the April 26, 1989 Memorandum from then OSW Director Sylvia Lowrance (Lowrance Memorandum).

It should be emphasized that the Region is not making any determination on this issue. The Region does not have the company's request in front of us or the State's complete file. Also, the Region has not sought to resolve this issue since, for the reasons explained above, it is our opinion that the foundry sand will be subject to regulation whether or not its proposed use as a

fluxing agent is "legitimate."

However, we note that all of the criteria in the Lowrance Memorandum would need to be considered to determine whether the proposed reuse is "legitimate." In particular, the following issues would need to be addressed. First, the State would need to determine whether the smelter will pay the foundry for the sand or the foundry will need to pay the smelter to take the sand. If the foundry must pay the smelter to take the sand, the foundry would need to address the perceived conflict between classifying the sand as an effective substitute for a product and having to pay the smelter to take the "product." See Lowrance Memorandum, criteria (3). At minimum, the foundry and smelter would need to demonstrate that the smelter would decrease purchases of an equivalent amount of virgin sand when using the foundry sand, i.e., that the foundry sand truly would take the place of another product. See also Lowrance Memorandum, criteria (1). This is a particular concern here since the percentage of silica sand in the company's spent material (60%) is below the percentages typically found in spent foundry sand (80 - 90% range). Second, the foundry would need to address how the spent sand would be handled throughout its life cycle, if exempted from regulation. If the sand was mishandled (e.g., stored on the ground), this would be inconsistent with its claimed status as a valuable product. See Lowrance Memorandum, criteria (5). Finally, the foundry would need to address the "toxics along for the ride" issue raised by the fact that the spent sand differs from virgin silica in that it contains high quantities of lead. See Lowrance Memorandum, criteria (1) and (6). In particular, the foundry and smelter would need to document whether the lead content in the smelter's slag would be significantly affected as a result of using a fluxing agent containing lead (and not reclaiming the lead). In that regard, it also would be appropriate for the State to further examine the claim that any lead contained in the sand will be rendered unleachable as a result of the smelting process. It is not clear that smelting processes uniformly produce slag which passes the TCLP test for lead.

### Conclusions

In line with the guidance provided above, the foundry will need to follow hazardous waste management requirements in storing and shipping the sand, including all applicable requirements regarding foreign shipments and the use of a hazardous waste manifest. However, this does not preclude the foundry from sending the sand to the Canadian smelter, with the continued approval of the Canadian government.

If the NHDES believes that regulatory relief is appropriate for foundry sand heading for both reuse and reclamation, it should consult further with this Region about whether the NHDES could grant a variance consistent with 40 CFR §§ 260.30 and 260.31. The NHDES will have the authority to grant such variances for Toxicity Characteristic (TC) as well as non-TC wastes, once it obtains authorization of its TC Rule. However, it may be appropriate to limit consideration of any variances to situations where lead is being reclaimed. It is not clear that sending spent sand to a copper smelter is an environmentally preferable outcome which should be encouraged by reducing regulation, given that the sand's lead ends up disposed with the smelter's slag.

For CRTs being sent to smelters, regulatory relief should be provided once the NHDES completes its plan to include CRTs in its Universal Waste Rule. Keeping streamlined UWR regulations in place seems preferable to determining that there is a total exemption.

If you have any questions regarding this letter, please do not hesitate to contact either Stephen Yee of the Hazardous Waste Unit, at (617) 918-1197 or Jeffry Fowley of the Office of Regional Counsel at (617) 918-1094.

Sincerely,

A handwritten signature in black ink, appearing to read "Marvin Rosenstein", with a long horizontal flourish extending to the right.

Marvin Rosenstein, Chief  
Chemicals Management Branch

Enclosures

cc: G. Gosbee, Chief, Hazardous Waste Unit, EPA  
K. Rota, Chief, RCRA Enforcement Unit, EPA  
M. Hoagland, Chief, RCRA Corrective Action Unit, EPA  
J. Miller, Chief, Waste Branch, MADEP  
D. Sattler, Supervisor, WEED, CTDEP  
L. Hellested, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC

Faxback 13539

9441.1992(13)

RCRA/Superfund/OUST Hotline Monthly Report Question

May 1992

**2. Secondary Materials Used as Effective Substitutes for Commercial Products**

Section 261.2(e)(1) excludes certain recycled secondary materials from the definition of solid waste. Section 261.2(e)(1)(ii) excludes materials which are recycled by being used or reused as effective substitutes for commercial products. Can a material that must be reclaimed prior to use or reuse as an effective substitute for a commercial product qualify for the exclusion in 261.2(e)(1)(ii)?

No, this exclusion applies only to materials which are used or reused without prior reclamation. The January 4, 1985, Federal Register (50 FR 619) discusses this exclusion and states that "[w]hen secondary materials are directly used as substitutes for commercial products...these materials are functioning as raw materials...and, thus, are not wastes." A material that must be reclaimed prior to use (or reuse) as an effective substitute for a commercial product is not being directly used (or reused), and so would not qualify for this exclusion.

1083



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1  
1 Congress Street, Suite 1100  
BOSTON, MA 02114-2023

September 25, 2003

Stuart Muller  
12 Wilson Pond Lane  
Rowley, MA 01969

Re: Arsine Gas Cylinder Recycling

Dear Mr. Muller:

On August 11, 2003, we sent you a regulatory interpretation letter regarding your proposal to recycle arsine gas cylinders. We advised that if you establish an off-site facility to receive, store and recycle hazardous cylinders (e.g., cylinders containing contaminated adsorbent media and residual arsine gas that fail the TCLP regulatory test for arsenic), the cylinders will need to be shipped to the facility as a hazardous waste and the facility will need a RCRA permit. We have now reviewed your letter dated July 27, 2003 to Senators Kennedy and Kerry and Representative Tierney. We would like to explain why we continue to believe that handling the cylinders as a hazardous waste and obtaining a RCRA permit will be needed for your proposed operation.

Your letter quotes an EPA representative as stating that when one company's waste is another company's product, the material need not be shipped as a hazardous waste to the receiving company. This is correct assuming that what is shipped is indeed a product and is used by the receiving company as is. But this is not what you are proposing. Rather, you are proposing to receive cylinders which contain arsine gas that, due to the contaminated adsorbent media, are not reuseable until the media undergoes some type of physical or chemical treatment process that removes enough of the arsine gas to safely open the cylinder. Only when the cylinder is opened can the contaminated media be removed. Thus, hazardous waste requirements apply to the contaminated cylinders prior to reclamation (assuming that they would fail the TCLP test for arsenic), and of course to any additional wastes which are generated as a result of this proposed operation, including contaminated media, and gas captured in filters, which are removed from the cylinders, if they fail the TCLP test. Once the cylinders undergo treatment and the contaminated media is removed, the cylinders would be decontaminated. The cylinders would then be considered to be products, and the hazardous waste requirements would no longer apply.

CONCURRENCES

SYMBOL	JRNAME	DATE						
CHW	Stuart Muller	9/23/03	CHW	SEN	COMB			

Your July 27 letter also refers to the cylinders you plan to recycle as being "empty." But our understanding is that the containers will be filled with the contaminated adsorbent media as well as containing some residual arsine gas. Under both the federal and Massachusetts hazardous waste regulations, one of the requirements that must be met before a container is considered to be "empty" (and thus not subject to regulation) is that there must be no more than one inch of residue remaining in the container. A cylinder filled with adsorbent media clearly has more than one inch of residue. This is not a "gray area"- we simply see no basis for agreeing that these cylinders will be legally empty.

Your letter states that the EPA position that a RCRA permit is required will "prevent" you from proceeding with your proposed recycling operation. We would note a number of points in response. First, the EPA has not said that you may not pursue the recycling operation. Rather, we have raised some concerns which must be addressed (e.g., potential air emissions), and also have advised as to the level of hazardous waste regulation that would apply to the operation. The major difference of opinion comes down to whether a full RCRA permit (such as a Massachusetts Class C recycling permit) will be needed for the proposed operation or whether it will be sufficient for you to get a Massachusetts Class A recycling permit. Massachusetts initially developed the Class A program to cover recycling of materials that are not considered hazardous wastes under the federal program. More recently, Massachusetts has asked the EPA to approve the expansion of this program to cover on-site recycling by initial generators of hazardous wastes, and the EPA plans to soon propose to approve this expansion of the program.

However, Massachusetts has not proposed and the EPA is not planning to approve any expansion of the Class A program to cover the off-site recycling of federally regulated hazardous wastes. As we have previously advised, the EPA is of the opinion that the contaminated arsine gas cylinders when discarded by the manufacturer will be spent materials and thus are federally regulated hazardous wastes when being reclaimed (assuming that they would fail the TCLP test). Thus we think it clear, as a legal matter, that a full RCRA permit rather than a Class A permit will be required for your proposed recycling operation.

Obtaining a Class C permit may be more costly than obtaining a Class A permit, but we think this is the correct result of requiring that the appropriate higher level of regulation apply to your proposed operation. For example, one of the permit requirements applicable to off-site recyclers storing federally regulated hazardous wastes is to obtain financial assurance (such as insurance) to ensure that any environmental releases are addressed and that ultimately the facility is properly closed. Financial assurance is not required in the Class A program.

Other businesses across the country have set up successful recycling operations after obtaining full RCRA permits. The EPA encourages recycling, including the recycling of non-hazardous components of wastestreams, such as you propose. But it is not appropriate for the EPA to ignore generally applicable environmental requirements. While we recognize that you may choose not to proceed with your proposed recycling operation if you must obtain a RCRA permit, we think that allowing your project to go forward without the appropriate level of regulation would be inappropriate, in light of the environmental and safety risks that might result.

To summarize, we see no basis for changing our regulatory interpretation dated August 11, 2003. However, should you have any remaining questions or concerns, we would be prepared to again meet with you to discuss them. Please contact Sharon Leitch of my staff at 617-918-1647 or, if you prefer, ask the Congressional offices to contact Michael Ochs at 617-918-1066 to set up any such meeting.

Sincerely,

Marvin Rosenstein, Chief  
Chemicals Management Branch

cc: Senator Edward M. Kennedy  
Senator John Kerry  
Representative John F. Tierney  
Michael Ochs, Congressional & State Relations, EPA  
G. Gosbee, Chief, Hazardous Waste Unit, EPA  
K. Rota, Chief, RCRA Enforcement Unit, EPA  
J. Fowley, RCRA Atty., ORC - EPA  
Charlotte Mooney, EPA Office of Solid Waste  
J. Miller, Chief, Waste Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Grandchamp, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC

August 11, 2003

Mr. Stu Muller  
Boston Specialty Group  
PO Box 52  
Georgetown, MA 01833

re: Arsine Gas Cylinder Recycling

Dear Mr. Muller:

The letter is in response to our recent discussions and a meeting which took place in our offices with you and the Massachusetts Department of Environmental Protection (MADEP) on June 10, 2003, regarding your proposal to recycle arsine gas cylinders, and your request that EPA make a regulatory determination regarding the status of these cylinders when they are no longer useful to the manufacturer.

As background to this topic, we understand that there is currently a company which manufactures cylinders for use in the electronics industry. The cylinder consists of an absorbent media, a valve and the canister which contains the media. This media is used to absorb gas, in this case, arsine. A customer would require these types of cylinders for a particular application and when they are no longer able to remove gas from these cylinders the customer will return it to the manufacturer. The manufacturer would then either refresh the cylinder with more arsine or determine that the cylinder is no longer useful and send it off for disposal as a hazardous waste. One situation in which the manufacturer would discard the cylinder is when the "media" inside becomes contaminated. Another situation is when a cylinder has become so depleted that arsine gas can no longer be extracted by the customer, and the manufacturer either cannot or does not refresh the cylinder with more arsine gas. You are proposing to establish a business whereby you would take these "discarded" cylinders, remove any remaining gas and the contaminated media, and then send the cylinder and valve back to the original manufacturer for reuse. These two items have a significant monetary value to the manufacturer. You have suggested that these discarded cylinders should be considered a product for reworking and not a hazardous waste and have asked for EPA's opinion on this subject.

CONCURRENCES							
SYMBOL	CHW	REC	CHW	SER	CMB		
SURNAME	Al	De	Cooper	Rotak	MR		
DATE	8/7/03	8/7/03	8/8/03	8/8/03	8/11/03		

EPA Form 1320-1A (1/90) Printed on Recycled Paper OFFICIAL FILE CO

Stu Muller  
August 11, 2003  
Page 2

Following a review of the information you provided and after discussions within the Region and with EPA Headquarters we have come to the conclusion that the cylinders which are determined to be no longer useful to the manufacturer are a solid waste. Subsequently, your process that you propose appears to be regulated, in that if the cylinders that you receive are hazardous then you would need to be receiving them on a hazardous waste manifest. Additionally, your proposed operation in which the cylinders are "reworked" would be considered a hazardous waste recycling operation (assuming that it is shown to be legitimate recycling, as discussed below). Therefore, in your proposed business, you would be considered a "designated facility" in accordance with 40 CFR Part 260.10.

The basis for our solid waste determination is that we would consider the cylinders to fall into the category of a spent material being reclaimed (see 40 CFR Part 261.2). The definition of "spent material" includes any material that has been used and as a result of contamination can no longer serve the purpose for which it was originally produced without processing. A material is reclaimed if it is processed to recover a useable product. We considered whether the cylinders could meet the definition of "off-specification commercial chemical product" but determined that this definition was not applicable in this situation since the cylinders have become contaminated or depleted during use rather than being defective initial products. Note that the EPA has broadly interpreted spent materials to include materials which need to be reprocessed due to any impurity, factor or circumstance which causes the material to be taken out of service. See Memorandum, Shapiro to Hazardous Waste Division Directors, March 24, 1994. We also considered whether the cylinders when discarded by the manufacturer would meet the definition of an empty container. However, following a review of the regulations at 40 CFR Part 261.7 (and comparable State regulations) we have determined that they would not meet this criteria. The containers will contain all of the original media as well as some arsine gas, and clearly will not be empty.

If shown to be legitimate, the process by which you propose to "rework" the cylinders would be considered a recycling operation which would be exempt from the federal permitting requirements of Subtitle C of RCRA (see 40 CFR Part 261.6(c)(1) (parenthetical) and Part 261.6(c)(2)). This is based on the fact that items that you propose to recycle would fall under the definition of recyclable materials found at 40 CFR Part 261.6(a)(1). In order to maintain the permitting exemption of Part 261.6(c)(1) you must operate your proposed process as a legitimate recycling operation. The Agency has defined legitimate recycling to include, at a minimum, the following criteria: minimal processing is required to produce a final product; the final product has some value and there is a market for that product; the material is handled in a manner consistent with the raw material or product it is replacing; and the material is handled in a manner in order to minimize losses. Additionally, hazardous wastes which are recycled are still subject to the requirements for generators, transporters and storage facilities (see 40 CFR Part 262, 263, and all applicable sections of part 124, 264, 265, 266, 268, and 270.) Please note that the permitting exemption for recycling does not apply to the storage of the material prior to

Stu Muller  
August 11, 2003  
Page 3

recycling. If you intend to store any hazardous waste on-site, prior to introducing it into the recycling process then you would be subject to the RCRA Subtitle C requirements for storage facilities. The actual permit would need to be obtained from the MADEP, rather than the EPA. Note that although this is not federally required, the MADEP also requires permits for recycling operations not involving storage.

Should you decide to go forward with the proposed operation (notwithstanding our opinion that it will be subject to RCRA regulation), we advise you to contact the EPA and MADEP further to demonstrate that the recycling operation will be legitimate and will be conducted safely. In particular, in your preliminary discussions with us, you have indicated that the plan would be to capture all of the arsine to be removed from the depleted containers, and thus that the operation would have no hazardous air emissions. We would want to see documentation of this. Note that an operation which removed hazardous gas from containers only to put it into the air might be considered illegal disguised treatment rather than legitimate recycling.

Finally, please note that the Commonwealth of Massachusetts, in accordance with Section 3006 of the Resource Conservation and Recovery Act (RCRA), is authorized to administer and enforce the base RCRA program in lieu of the federal program. Therefore, we suggest that you continue your discussions with the MADEP regarding applicable state regulations which may go beyond the minimum federal requirements.

If you have any questions regarding this response, please do not hesitate to contact Sharon Leitch, in the Hazardous Waste Unit, at (617)918-1647.

Sincerely,

Marvin Rosenstein, Chief  
Chemicals Management Branch

cc: G. Gosbee, Chief, Hazardous Waste Unit, EPA  
K. Rota, Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
J. Miller, Chief, Waste Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
D. Sattler, Supervisor, WEED, CTDEP  
L. Grandchamp, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC

9441.1994(07)

March 24, 1994.

MEMORANDUM

SUBJECT: Definition of Spent Material

FROM: Michael Shapiro, Director  
Office of Solid Waste

TO: Hazardous Waste Management Division Directors  
Regions I-X

The purpose of this memorandum is to clarify when a secondary material meets the definition of "spent material". A spent material is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without further processing." 40 CFR §261.1(c)(1). A number of EPA Regions have requested assistance from EPA Headquarters on making regulatory determinations for secondary materials that may meet the regulatory definition of spent material. For many secondary materials this determination is important because spent materials being reclaimed are solid wastes. 40 CFR §261.2(c)(3). However, sludges and byproducts that exhibit a characteristic of a hazardous waste and commercial chemical products (whether listed or characteristic) are not solid wastes when reclaimed. 40 CFR §261.2(c).

In particular, EPA Headquarters has been asked whether in order to meet the definition of spent material, a material must: 1) be spent as a result of contamination, and 2) be nonfunctional in the sense that it could not continue to be used for its original purpose. We have consistently interpreted this definition as applying to "materials that have been used and are no longer fit for use without being regenerated." 50 FR at 618 (January 4, 1985); 48 FR at 14476 (April 4, 1983). We thus consider "contamination", as used in the definition of spent material, to be any impurity, factor or circumstance which causes the material to be taken out of service for reprocessing. (See also 50 FR at 624, indicating that the reference to contamination was added to clarify that a material such as a solvent may continue to be used for its original, though not identical, purpose and not yet be classified as a solid waste.)

Similarly, we consider the part of the definition stating that a spent material "can no longer serve the purpose for which it was produced" as being satisfied when the material is no longer serving its original purpose and is being reprocessed instead. EPA has consistently maintained this interpretation since it promulgated the definition of spent material.<1>

This is the only interpretation that makes environmental sense, since once used materials are taken out of service and sent for reclamation they pose the same potential risks and are handled in the same manner regardless of the reason they are taken out of service. Put in terms of a specific example, lead acid batteries that are taken out of service and sent to a lead reclaimer pose the same risks and are handled the same way no matter how many or how few physical and chemical impurities they contain, and no matter how much or how little the presence of impurities contributed to the decision to stop using the battery in the first place. See United States v. Ilco Inc., 996 F. 2d 1126 (11th Cir. 1993), where the court held that all batteries sent to a secondary lead smelter for recovery were "spent materials" without regard for the reason the batteries were taken out of service.

As another example, when a generator removes mercury-bearing thermostats from buildings as part of an upgrade to the building's heating system, the thermostats could continue to be used for the remaining portion of their useful lives. However, assuming the generator intends to ship these thermostats to a reclamation facility for mercury recovery, these thermostats would be considered to be spent materials irrespective of the reason for their removal and the fact that the thermostats were potentially capable of being used as thermostats in another building.

#### Background/Analysis

Under RCRA Subtitle C regulations, a spent material is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." 40 CFR §261.1(c)(1). This definition was promulgated in the 1985 final rule amending the definition of solid waste. 50 FR 614, January 4, 1985.

The preamble to the final rule makes it clear that the "as a result of contamination" language was added to avoid classifying as waste a used material that was actually being put to further direct use. 50 FR at 624. The preamble gives the example of a solvent that is not clean enough to clean circuit boards but still clean enough for use as a metal degreaser.

The reason the "as a result of contamination" language was chosen is because many spent materials such as solvents and spent activated carbon typically become spent because of impurities. The Agency did not intend to restrict the definition of spent materials to only those materials which became spent as a result of this type of contamination. On the contrary, in the same rule that the Agency defined spent material, EPA promulgated regulatory requirements under Subtitle C for spent lead-acid batteries being reclaimed. The Agency explicitly classified spent lead-acid batteries as spent materials in the final rule. 50 FR at 625. These batteries become "spent" for a variety of reasons (e.g., overcharging, frozen electrolyte, leakage) all of which EPA regards as being "contamination" for purposes of the definition.

Regarding whether a material must be nonfunctional to meet the definition of spent material, the fact that a material can continue to be used for its original purpose is not relevant to the issue of whether or not it is a spent material when it is clear from the facts that the material will not be used but instead will be treated by reclamation. The mere potential for continued original use does not preclude a material from being defined as spent. As stated above, the fact that it is actually removed from service establishes, as to this generator, that it can no longer serve its original purpose.

If all that were required to avoid RCRA Subtitle C regulation would be a showing that a secondary material could continue to be used, then generators would be able to circumvent RCRA simply through changing their operating practices to remove secondary materials just prior to that material being unfit for its original use. Thus, spent solvents that are heavily contaminated but might still be fit for metal degreasing (even though they were being sent to be regenerated into new solvents), spent lead-acid batteries that still had a charge (or were capable of holding a charge), and mercury-bearing thermostats removed from buildings sent for reclamation would not be subject to RCRA regulation in spite of the fact that the generator was no longer using the material but instead was sending it to be treated by reclamation.

Clearly, this result is not consistent with the cradle-to-grave purpose of RCRA Subtitle C regulation. Used materials taken out of service and sent for reclamation also pose the same risks and are handled in the same manner regardless of the reason they are taken out of service. For this reason, EPA has consistently interpreted spent materials as including materials which could continue to be used for their original purpose but are, in fact, being taken out of service for reclamation, showing that for this generator they can no longer serve the purpose for which they were produced.<2>

### Conclusion

Because spent materials being reclaimed (or to be reclaimed) are within the definition of solid waste, it is important to be able to distinguish among spent materials, other categories of solid wastes such as sludges, and products which are still in use that have not been discarded. Spent materials are distinguished from products and other categories of solid wastes in that they have been used previously and have been taken out of service and are going to be treated by reclamation. Examples of spent materials include spent lead-acid batteries, used mercury switches, spent solvents, spent catalysts and spent etchants.

This memorandum states the Agency's consistent interpretation of the existing regulations. However, EPA recognizes the issues regarding the regulatory definition of spent material and we may consider revising the regulatory definition in the future. If you have further questions on this issue, please call Mike Petruska of my staff at (202) 260-8551.

cc: Susan Bromm  
Susan O'Keefe  
NEIC, Frank Covington

1 See 50 FR at 650 (January 4, 1985), indicating that spent batteries, spent mercury, spent acids and

caustics remain subject to regulation when reclaimed regardless of the reason these wastes are removed from service, November 6, 1986 letter from Matt Straus to H. Bzura stating that copper etchants sent for reclamation were defined as "spent materials (i.e., materials that have been used [sic] are no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed)." See also April 14, 1989 letter from Stephen Cochran to Robert Oleszko indicating that ignitron tubes containing mercury sent for reclamation were spent materials irrespective of the reason that the tube was taken out of service.

2

See May 20, 1987 letter from Matthew Straus to Peter Russell indicating that spent pickle liquor becomes a spent material/solid waste when it is removed from pickling line baths regardless if it can continue to be used. See also July 15, 1990 letter from Sylvia Lowrance to Ralph Eschborn indicating that photographic fixer bath sent for reclamation is a spent material even though the solution could continue to be used as a fixer.

1832

**Gary Gosbee**

04/23/03 09:20 AM

To: Sharon Leitch/R1/USEPA/US@EPA  
cc:  
Subject: Waste Machine Coolant Question

Sharon - please see me on this when you have a minute.

Thx  
Gary

..... Forwarded by Gary Gosbee/R1/USEPA/US on 04/23/03 09:19 AM .....



**Ken Rota**

04/18/03 07:23 AM

To: carolmarsh@snet.net  
cc: Sharon Leitch/R1/USEPA/US@EPA, Gary  
Gosbee/R1/USEPA/US@EPA, Carol  
Krasauskis/R1/USEPA/US@EPA  
Subject: Waste Machine Coolant Question

Dear Ms. Marsh,

I was forwarded your message regarding labelling requirement for waste machine coolants and questions about what type of machine coolants can be mixed. As a practical matter, we have found that many waste machine coolants often become contaminated from the use of degreasing solvents located near this equipment and used to clean parts. Not knowing you're exact situation, I would advise you to first determine whether or not your waste coolants are actually hazardous wastes if you operate your facility in a similar manner. As far as waste coolants are concerned, federal requirements found at Part 279 identify basic waste management standards that identify the requirements you need to comply with. You should be able to download these regulations off the internet from the EPA general website.

In general, oils regulated under Part 279 would be marked as used oil and you would have some other basic container management standards to comply with as well. There is no federal prohibition against mixing different types of coolants (water-based/oil-based). However, you may find that the disposal facility may not prefer crossed mixed coolants if it impacts their ability to recycle this material. As a final suggestion, you should contact the CT DEP office. Many of our New England states regulate waste coolants as hazardous wastes regardless of whether these coolants have become contaminated from other on-site activities or not. The CT DEP can provide you with the specific information you need to comply with their rules and regulations.

Sincerely,

Ken Rota, Chief  
RCRA Compliance Unit  
US EPA - New England Region  
Direct Tel: (617) 918-1751  
Direct Fax: (617) 918-0751  
Office Fax: (617) 918-1809  
<http://www.epa.gov/region1>

\*\*\*\*\*

I need help locating the labeling requirements of stored waste machine coolants and how to find out what types of coolants can be mixed.  
email address  
carolmarsh@snet.net  
first and last name

carol marsh  
organization  
SSI Manufacturing  
phone number  
860-589-8004 x112

**Gary Gosbee**

04/23/03 10:05 AM

To: Sharon Leitch/R1/USEPA/US@EPA  
cc:  
Subject: Waste Determination Question

Sharon, let's discuss when you have a minute.

Thx  
Gary

----- Forwarded by Gary Gosbee/R1/USEPA/US on 04/23/03 10:04 AM -----

**Ken Rota**

04/15/03 08:53 AM

To: ashetland@lithion.com  
cc: Carol Krasauskis/R1/USEPA/US@EPA, Sharon  
Leitch/R1/USEPA/US@EPA, Gary Gosbee/R1/USEPA/US@EPA  
Subject: Waste Determination Question

Dear Mr. Shetland,

I was forwarded your message concerning waste determinations for wastes not listed under Part 273. I'm not exactly sure what the misunderstanding might be but for clarification purposes, Part 273 is designed to allow reduced management standards for wastes that would otherwise be regulated as hazardous wastes and subject to the full-blown requirements of 40 CFR Part 262. If particular waste streams are not listed under Part 273 then they do not qualify for this special exemption unless and until the CT DEP adds these additional waste streams to the Part 273 list.

As such, the waste determination regulations already outlined at 40 CFR 262.11 and in effect for the last 23 years would be the process required by all generators to determine if any solid waste generated by their activities may be hazardous. So if, for example, any solid wastes your company produces are not "listed" hazardous wastes under Subpart D of Part 261 or do not qualify for any of the special exemptions that may apply (such as Part 273), you are still required to determine whether these wastes would otherwise fail any of the hazardous characteristics described Part 261, Subpart C. These procedures outlined in the regulations identified specific test methods and also allow generator knowledge, provided that you, as the generator, are able to obtain information that documents the types of constituents that are found in your products and demonstrate the concentrations of any hazardous constituents would not exceed the regulatory limits set for those chemicals.

The characteristics described at Part 261, Subpart C represent the federal "safety net" designed to capture wastes that exhibit certain characteristics that may pose a threat to human health or the environment that aren't otherwise specifically listed. EPA always directs every generator to contact their state agency since many state agencies may be more strict and often regulate additional wastes as state hazardous wastes that the federal government did not include in our list of hazardous chemicals.

Hopefully this information helps you to properly characterize your wastes.

Sincerely,

Ken Rota, Chief  
RCRA Compliance Unit  
US EPA - New England Region  
Direct Tel: (617) 918-1751  
Direct Fax: (617) 918-0751

1



**Ken Rota**

03/31/03 08:00 AM

To: diane.maxwell@dla.mil  
cc: Gary Gosbee/R1/USEPA/US@EPA, Sharon  
Leitch/R1/USEPA/US@EPA, Jeff Fowley/R1/USEPA/US@EPA  
Subject: Waste Aerosol Cans

Dear Ms. Maxwell,

I was forwarded an email/controlled correspondence from you requesting Region 1's position on adding the D003 (reactive) to waste aerosol cans containing other waste codes (i.e. D001). The question you pose does not represent a matter of regional interpretation and is a simple matter of proper waste determination under 262.11. If, during your hazardous waste determination procedures, you find that waste aerosol cans also exhibit the characteristic of reactivity, in addition to any other characteristics (typically ignitability, heavy metals and certain solvent constituents), then that additional waste code must be identified and, the waste, when manifested off-site, must be declared on the LDR notice (waste codes on a manifest are state requirements) along with the proper LDR treatment code. This position, as well as other EPA interpretations/explanations of the regulations are publically available on EPA's website found at <http://www.epa.gov/rcraonline>.

Sincerely,

Kenneth B. Rota, Chief  
RCRA Compliance Unit  
US EPA - New England Region  
Direct Tel: (617) 918-1751  
Direct Fax: (617) 918-0751  
Office Fax: (617) 918-1809  
<http://www.epa.gov/region1>

1152



**Ken Rota**

01/14/03 08:06 AM

To: dfarmer@wurtheastern.com

cc: Cynthia Greene/R1/USEPA/US@EPA, Gary

Gosbee/R1/USEPA/US@EPA, Jeff Fowley/R1/USEPA/US@EPA,

Sharon Leitch/R1/USEPA/US@EPA

Subject: Re: Oclansorb

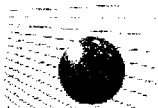
Dear Mr. Farmer,

Your email was forwarded to me by Cynthia Greene. The majority of the New England states regulate used oil, including spills involving used oil. The fact that peat is used instead of clay does not matter since it is the presence of oil which causes the material to be regulated. As such, I would direct you to contact each state regarding their procedures for handling oil contaminated materials. Depending upon the individual state involved, oil collected by your absorbent could be regulated as a state hazardous waste and subject to a variety of requirements. While the possibility may exist for this type of waste to be burned in an incinerator, such a determination is site specific and is based upon the characteristics exhibited in the oil by a particular generator and is not dependent upon the use of your particular product or the fact that it is peat-based. My advice to you, therefore, is to have your customers contact the various state agencies in which they are located to provide them with the site-specific details of the oils that they use and the types of contaminants that may be contained in these oils to determine the appropriate handling, management and disposal methods.

Sincerely,

Ken Rota, Chief  
RCRA Enforcement Unit  
EPA - New England Office

Cynthia Greene



**Cynthia Greene**

01/13/03 08:58 AM

To: Ken Rota/R1/USEPA/US@EPA

cc:

Subject: Oclansorb

Can you answer?

Cynthia L. Greene  
Senior Advisor  
Office of Assistance and Pollution Prevention  
US EPA New England  
One Congress Street, Suite 1100 (SPP)  
Boston, MA 02114-2023  
617-918-1813  
FAX: 617-918-0813  
greene.cynthia@epa.gov

----- Forwarded by Cynthia Greene/R1/USEPA/US on 01/13/03 08:57 AM -----



**Doug\_Farmer@natacc  
t.com**

01/10/03 10:39 AM

To: Cynthia Greene/R1/USEPA/US@EPA

cc:

Subject: Oclansorb

Hello Cynthia,

I left a voice mail for you earlier today & wanted to follow up with an e-mail.

I work for a distribution company that sells Oclansorb which is a organic peat moss from Newfoundland. It is used primarily to pick up waste oil. I would like to know the guidelines that I can use throughout MA (& New England if the same) regarding disposal.

I have a 1992 paper from the DEP on "Waste management guidance for industrial wipers and sorptive materials contaminated with waste oil" which shows a hierarchy of the disposal of waste oil:

1.Reduce 2. Reuse/Recycle 3.Incinerate 4.Landfill

Our product would fit into #3 waste oil that was spilled in smaller quantities that could not be picked up and recycled.

The paper mentions a "one drop test" & paint filters liquids test.

Oclansorb has passed:

- TCLP Procedure 1311
- LT50 Toxicity Test
- Paint Filter Test 9095
- ASTM Test

We are selling Oclansorb as a product that is more environmentally friendly than clay based products because:

- It uses much less material
- It will not leach oil

I are not looking for an endorsment but would like to be clear what I can tell my customers:

-Is Oclansorb ok to send to incinerator (preferred) or landfill if used within the hierarchy of waste management?

I would be glad to provide information and product if needed.

Please advise. Thank you.

Wurth Eastern Fastener Corp

Doug Farmer

240 Cherry Street

Shrewsbury, MA 01545

cell 508-612-6102 (best place to reach me)

Phone: 508.842.4442

Fax: 508.842.6608

dfarmer@wurtheastern.com



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
ONE CONGRESS STREET SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

November 17, 2004

Steven A. DeGabriele  
Director, Business Compliance Division  
Bureau of Waste Prevention  
Department of Environmental Protection  
One Winter Street  
Boston, MA 02108

Re: RCRA Wastewater Treatment Unit Exemption

Dear Mr. DeGabriele:

In response to your letter dated October 29, 2004, this letter addresses the issue of the applicability of the wastewater treatment unit exemption under the Resource Conservation and Recovery Act (RCRA) to the proposed wastewater treatment facility at the Texas Instruments site in Attleboro, MA.

I. Background

Based on the September 28, 2004 letter from Francis Veale, Jr., Environmental Safety and Health Manager of Texas Instruments Incorporated (TI) to Christopher Tilden of the Massachusetts Department of Environmental Protection (MADEP), and other information provided by the company, we understand that the proposed facility would operate as follows. TI is proposing to sell the land it currently owns at its Attleboro site to Preferred Real Estate Investment, Inc. (PREI). NewStream, L.L.C. (NewStream) plans to operate the existing wastewater treatment plant on site. NewStream will own and operate the treatment equipment and piping within the building where the treatment plant is located. NewStream also will lease from PREI and maintain the outdoor pipes (and principal indoor piping) which will carry wastewaters from other buildings on the site to the treatment plant. Engineered Materials Solutions, Inc. (EMSI) and TI (for a temporary period) will continue to conduct operations on site which will generate hazardous wastewaters which will be transported through contributing pipes operated by them within their respective buildings and then through the pipes leased by NewStream to the treatment plant. The treatment plant will discharge into a sewer line owned by Attleboro, MA, subject to requirements to be specified in a sewer connection permit to be issued by the MADEP and a pretreatment permit to be issued by Attleboro. In the future, it is possible that additional

companies may locate on site and discharge wastewaters (possibly hazardous) to the treatment plant. The entire proposed system is and will remain hard-piped.<sup>1</sup>

## II. Analysis

Since the wastewaters generated by EMSI and TI are hazardous, all of the companies involved in generating them, storing/transporting them on site and treating them are subject to RCRA unless an exemption applies. It seems clear that no exemption other than the wastewater treatment unit exemption could apply. For example, the totally enclosed treatment facility exemption does not apply. As explained in the opinion of Jeffrey Fowley of our Office of Regional Counsel dated January 13, 1997, the totally enclosed treatment facility exemption applies only when an entire system is totally enclosed from the point of generation so as to have essentially no potential for any kind of emissions. The material submitted by TI falls well short of establishing that the entire proposed operation will be totally enclosed. For example, it appears that this kind of operation has at least some potential for having fugitive or other air emissions.<sup>2</sup>

While it is the analogous State exemption (for "treatment which is integral to the manufacturing process") that applies in Massachusetts (as part of the federally authorized State RCRA program), the State regulations track the federal regulations in stating that only systems which are "totally enclosed" may qualify for the exemption. The federal exemption is interpreted narrowly and the MADEP needs to similarly interpret its exemption narrowly in order to ensure that its program does not become less stringent than the federal program.<sup>3</sup>

In addition, the domestic sewage exemption will not apply to the proposed operation while the wastewaters remain within the site. As explained in this Region's April 9, 1999 regulatory interpretation letter, that exemption applies only from the point where industrial wastes mix with domestic sewage upon and after being discharged into a municipal sewer line.

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<sup>1</sup> The opinions in this letter are of course subject to the assumption that all of the representations made by TI are complete and accurate.

<sup>2</sup> In a regulatory interpretation letter dated April 9, 1999, this Region noted that when hazardous wastewater is transported in containers, the totally enclosed treatment facility exemption does not apply since the hazardous wastes are being stored or transported other than through hard pipes. But this does not mean that any system using hard piping qualifies for the exemption - rather to qualify for the exemption, the *entire* system must be *totally* enclosed.

<sup>3</sup> Interpreting the totally enclosed treatment system exemption narrowly is environmentally justified since it is a total exemption from RCRA regulation. In contrast, as explained below, it is appropriate to apply the wastewater treatment unit exemption more broadly since there will be alternative regulation under the Clean Water Act whenever that exemption is applied.

### Wastewater Treatment Unit Exemption

The federal RCRA regulations exempt wastewaters contained within wastewater treatment units from the hazardous waste treatment, storage and disposal facility requirements in 40 CFR parts 264, 265 and 270. See 40 CFR §§ 264.1(g)(6), 265.1(c)(10) and 270.1(c)(2)(v). These provisions also have been interpreted by the EPA's national program offices to exempt wastewater treatment facilities from compliance with the RCRA generator storage requirements set out in 40 CFR § 262.34. To qualify for this exemption, an owner or operator must meet all of the tests as spelled out in the definition of "wastewater treatment unit" in 40 CFR § 260.10.

It appears that the proposed operation will meet the third test set forth in the regulation - that all wastewaters remain within a "tank" or "tank system." So long as the entire system remains hard-piped, with the pipes within the EMSI and TI buildings remaining connected to the outdoor pipes and those pipes in turn remaining connected to the treatment tanks, the entire system will be a inter-connected "tank system."<sup>4</sup>

It also appears that the proposed operation will meet the second test set forth in the regulation - that all wastewaters are either being treated or are being stored as influent wastewaters (i.e., prior to treatment).<sup>5</sup> Transport of the wastewaters through the EMSI and TI building pipes and through the outdoor pipes is within what the EPA considers to be "storage."

However, if the companies involved wish to claim the exemption, it is imperative that the proposed operation be structured so as to meet the first test set forth in the regulation - that the wastewaters be within a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act (CWA). This requires that the entire operation from the point of generation within the EMSI and TI buildings to the point of discharge to the municipal sewer be subject to CWA regulation. In this situation, the necessary requirements need to be contained in a pretreatment permit to be issued by Attleboro under CWA 307(b). However, the necessary requirements could first be included in a sewer connection permit to be issued by the MADEP, which could then serve as a model for the Attleboro permit.

The CWA regulation will substitute for RCRA regulation in two distinct ways. First, regulating the discharge into the municipal sewer through such things as numerical effluent limitations in the pretreatment permit will justify not regulating the treatment process itself under a RCRA treatment permit. Second, regulating the EMSI and TI pipes and the outdoor pipes (as well as the treatment tanks themselves) through applying a requirement for proper operation and maintenance (typically found in pretreatment permits) will justify not regulating those units under RCRA generator or other requirements.

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<sup>4</sup> If new companies locate on site and generate hazardous wastewaters, their discharges similarly will need to go through an inter-connected hard-piped system in order to maintain the exemption.

<sup>5</sup> If hazardous sludge is generated by the operation, it will of course be subject to RCRA regulation. How and when those requirements will apply is beyond the scope of this opinion letter.

For the RCRA exemption to be claimed, at a minimum NewStream must be specified in the pretreatment permit as being responsible for the operation and maintenance of the pipes that it leases as well as being responsible for the operation and maintenance of the treatment units themselves as well as being responsible for the municipal sewer discharges.<sup>6</sup> Also, EMSI and TI must be specified in the permit as being responsible for the operation and maintenance of the pipes they operate within their buildings (and any other tank system facilities within their building used to store or transport the wastewaters).

In interpreting the federal requirements applicable to the proposed project, we are making use of guidance issued by the EPA Office of Solid Waste on June 1, 1990. See Letter from David Bussard to James Mulligan (Faxback 11519). As noted there, the EPA has applied the wastewater treatment unit exemption to operations involving more than one company located on a contiguous site, but only if all the companies involved in handling hazardous wastewaters are made subject to CWA regulation. As explained there (in example 1) if facilities being used to handle hazardous wastewaters "are unregulated by the NPDES program, it would be inappropriate to exempt them from RCRA regulation."

The minimum specifications set out in this letter are consistent with the June 1, 1990 EPA guidance. In example 2 of that guidance, the EPA stated that for the RCRA exemption to apply when two companies were handling hazardous wastewaters discharged through a common point, a CWA permit must be issued to both companies as co-signatories or co-permittees, or the permit must expressly cover both companies "so that CWA authorities can prescribe and enforce tank system requirements" at both companies. In the situation before us, only the inclusion in a CWA permit of NewStream as being responsible for the pipes that it leases and the inclusion of EMSI and TI as being responsible for their indoor pipes will achieve that objective and thus "cover" those companies under the permits in the sense meant by the EPA guidance. Simply specifying in the permit that the pretreatment authority recognizes that wastewaters are being generated by EMSI and TI is not sufficient to invoke the RCRA exemption. While we recognize that TI in an internal analysis interpreted the June 1, 1990 guidance differently, through this letter we are now ending any possible confusion.

It also should be emphasized that this letter simply sets out the minimum specifications which the MADEP should follow in order to ensure that its RCRA program is not less stringent than federally required. The MADEP is of course free to apply the wastewater treatment unit exemption in a more stringent manner. Also, this letter simply sets out the requirements under RCRA for obtaining an exemption. Attleboro, and the EPA and MADEP water programs, may decide to impose requirements based on the Clean Water Act or other provisions which go

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<sup>6</sup> We understand that NewStream and PREI are planning to agree by contract that while NewStream will be responsible for funding the costs of day to day operation and maintenance of the pipes, PREI will be responsible for funding any required major capital reconstructions. This side agreement does not restrict the regulatory authority of the EPA, MADEP or Attleboro and is acceptable only if NewStream nevertheless accepts full and unconditional responsibility under the CWA for the operation and maintenance of the pipes (or if both NewStream and PREI are included as being responsible for the pipes in the permit).

beyond the minimum steps needed to exempt the facilities from RCRA.<sup>7</sup>

Finally, in specifying the minimum provisions that need to be included in a CWA permit in order to invoke the RCRA exemption, we do not intend to limit other EPA (or State or local) regulatory authority. For example, in the event that one of the outdoor pipes was to leak hazardous wastewater, this would be considered a release of hazardous waste under RCRA. The wastewater treatment unit exemption applies only while the wastewater remains within the exempt units. Whether or not they are included in the water permit as being responsible for the operation and maintenance of the outdoor pipes, any generators of the wastewater, New Stream as pipe operator and PREI as pipe owner would all be liable for any leaks from the pipes.

I hope that this letter will be of assistance to the MADEP's ongoing efforts to address the situation. Please feel free to contact me should you need any further EPA assistance.

Sincerely,



Marv Rosenstein, Chief  
Chemical Management Branch

cc: Margaret Stolfa, MADEP General Counsel  
Francis J. Veale, Jr., Texas Instruments  
Ralph Child, Esq., counsel to Texas Instruments

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<sup>7</sup> Specifying what CWA requirements must be included in the pretreatment permit is beyond the scope of this opinion letter.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
ONE CONGRESS STREET SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

December 20, 2005

Mr. Edward Pickering, PE, MBA  
Senior Compliance Specialist  
Woodard & Curran  
980 Washington Street, Suite 325  
Dedham, MA 02026

Dear Mr. Pickering:

This letter is in response to your request for an EPA Region I regulatory interpretation regarding the applicability of Resource Conservation and Recovery Act (RCRA) requirements to the waste and/or wastewaters generated during cleaning of laboratory glassware and implements. In your May 10, 2005 letter to me you ask about a scenario in which laboratory technicians squirt a 70% methanol (ignitable) solution from wash bottles onto items being cleaned in a sink. In your letter you state, "[i]nvariably, when sinks are used for such activities, the water is turned on at a flow rate of approximately one gallon per minute and left on during the entire duration of the process to aid in the cleaning procedure, and to capture and deliver the methanol solution/waste material for discharge into the drain." You infer that this process generates a wastewater which because of dilution will lose its ignitability characteristic. You state that the wastewater is carried through a segregated plumbing system constructed with chemical-resistant piping to a pH adjustment treatment tank, prior to being discharged to a municipal sewer and mixing with domestic sewage. You note that the discharged wastewater is subject to pretreatment requirements under section 307(b) of the Clean Water Act.

Your letter raises the general issue of whether concentrated chemicals may be discharged down laboratory drains. In responding, I first want to emphasize that the EPA considers the discharging of concentrated chemicals down laboratory drains to be a poor environmental practice. In the scenario you describe, the presumable purpose of the methanol solution is to remove contaminants that are not amenable to dissolution and removal by water. Applying the methanol solution in the presence of running water may limit the effectiveness of the methanol and require the application of a greater amount of methanol solution.

A preferred procedure, employed in EPA's own regional laboratory and common throughout academic, research and healthcare facility laboratories, is to apply solvents or solvent solutions over some form of container that can capture excess, spent solvent as it flows off of the glassware/implements being cleaned. This captured spent solvent is then managed as a hazardous waste. Following this step the glassware is then rinsed with running water and only

the smaller volume of residue still adhering to the cleaned surfaces is washed off and discharged down the drain subject to the Clean Water Act.

However, whether the scenario you describe violates RCRA requirements depends in part on the requirements of the States that have been authorized to implement the federal RCRA program. All six New England States in Region I have been authorized to implement this program. All of them have regulations and interpretations of those regulations which address this issue, which generally are more stringent than the minimum federal RCRA requirements and interpretations. Under RCRA, States are entitled to interpret requirements more stringently than the EPA. Thus throughout Region I, it is actually the State RCRA requirements (as interpreted by the States) that must be followed regarding this matter.

Accordingly, I have consulted with the six States before answering your letter. I apologize for the time that this has taken, but am now able to pass along to you that the six New England States generally do not allow the practice suggested in your letter. The regulations and reasoning used by each state may differ from one state to the other, but the general conclusion is consistent across all six states. In relaying the State positions, I am not intending to state or imply what the EPA position would be on these matters. What the minimum federal requirements regarding this matter would be is irrelevant in Region I since all six Region I States have taken more stringent positions with respect to this matter.

### **Overview of State Requirements**

In analyzing the scenario you presented, the six States in Region I have first agreed that the methanol solution becomes a spent material after being utilized for cleaning. Since the solution is ignitable, any undiluted spent solution dripping from the glassware or implements can be expected to be a characteristic hazardous waste (D001).<sup>1</sup> The Land Disposal Restrictions - Treatment Standards for D001 would classify the methanol solution as being in the High TOC Ignitable Characteristics Liquids Subcategory as defined in 40 C.F.R. § 268.40, because a 70% methanol solution, even when mixed with a small volume of other material removed from the item being cleaned, will contain significantly greater than 10% total organic carbon.

A key question is whether the application of the methanol solution should be conducted in the presence of running water. Under the interpretations of the six New England States, combining the solvent rinse and the water rinse into a single integrated step results in intentional dilution of the D001 High TOC Ignitable Characteristic Liquid subcategory waste (the spent solution that could have been kept segregated.) Such wastes are specifically barred from dilution by 40 C.F.R. § 268.3 since a treatment method other than DEACT (deactivation) has been specified in 40 C.F.R. Part 268.40 for this subcategory of the D001 waste code. Thus diluting the methanol

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<sup>1</sup> Spent cleaning solutions also may be listed wastes. If a spent solution is a listed waste in addition to being a D001 characteristic waste, this would not change the positions described in this letter.

solution during the first cleaning step and then discharging the resulting wastewater down the drain violates RCRA requirements as interpreted by the six New England States.

It also would violate RCRA requirements as interpreted in the six New England States to discharge the 70% methanol solution down the drain without dilution during the first cleaning step. Without dilution, the methanol solution would remain a hazardous waste when initially discharged. Under their RCRA programs, the six Region I States generally do not allow the discharging down drains of such concentrated hazardous wastes.<sup>2</sup>

The six New England States agree that the dilute rinsewaters generated by the second cleaning step described above may be discharged subject to Clean Water Act requirements. Use of water during this second step is an appropriate part of the cleaning process rather than intentional dilution, assuming that full efforts already have been made during step one of the cleaning process to capture as much of the hazardous waste as possible. RCRA jurisdiction thus may be avoided if the resulting rinsewaters are not hazardous (i.e., no longer ignitable) at their point of generation in the sink. Each laboratory/generator should determine whether its rinsewaters are hazardous, based either on testing or knowledge of the waste.

If a generator is not confident that its rinsewaters generated by the second cleaning step are non-hazardous, it should assume that they are hazardous, but still may be able to discharge them subject to Clean Water Act requirements in the six New England States. All six States consider a laboratory's pH adjustment treatment tank and associated piping to be a wastewater treatment unit, and all six States have RCRA regulations allowing dilute hazardous wastewaters to be treated in such units and then discharged. However, the requirements regarding wastewater treatment units handling hazardous wastewaters vary from State to State (e.g., a limited RCRA program permit must be obtained in New Hampshire to operate such a unit). Thus a regulated entity proposing to treat and discharge a hazardous dilute wastewater should review the regulations of the relevant State and if necessary contact the RCRA program in that State.

It also should be noted that laboratories discharging hazardous wastewaters into POTWs must file the notifications required by the Pretreatment Program under 40 C.F.R. § 403.12, as well as complying with all other applicable federal, state and local pretreatment program requirements. This notification would not be necessary for laboratories that have determined that their dilute wastewaters generated during the second cleaning step are not hazardous, but such laboratories must of course still meet all other applicable federal, state and local pretreatment program requirements.

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<sup>2</sup> All six of the New England states recognize that there may be unusual situations in which it makes environmental sense to discharge a concentrated hazardous waste pursuant to Clean Water Act requirements rather than handling the waste under RCRA. However, since all of them generally do not allow this practice, a regulated entity in New England should not proceed to discharge such concentrated hazardous wastes without advanced approval from or consultation with the RCRA program in the relevant State. Some of the states would require the obtaining of a state permit before discharging a concentrated hazardous waste whereas others would address any special situation by issuing a regulatory interpretation.

### Conclusion

We thus conclude that any facility should review a particular State's regulations and consult as necessary with their respective state on the specifics of a discharge of hazardous chemicals down a laboratory drain. It is our additional conclusion that the cleaning procedure you describe, which applies concentrated chemicals in the presence of running water rather than keeping them segregated to the extent possible, is a poor laboratory practice. Based on our consultations with the States, we also advise you that the practice generally is illegal within the six New England States.

Note that this letter has no applicability to States outside Region I, which may require only compliance with the minimum federal requirements and interpretations, or which may have other additional and more stringent requirements and interpretations. Please contact the State official copied below should you have any further questions about the applicability of the RCRA requirements for discharges of hazardous chemicals down a laboratory drain in a particular New England State.

Sincerely,



Marv Rosenstein, Chief  
Chemicals Management Branch

cc: Kevin Sullivan, CTDEP  
Stacy Ladner, MEDEP  
James Miller, MADEP  
John Duclos, NHDES  
Leo Hellested, RIDEM  
Peter Marshall, VTDEP  
Betsy Devlin, USEPA - OSW  
Jeffrey Fowley, USEPA - R1  
Ken Rota, USEPA - R1  
Ernest Waterman USEPA - R1  
William Cass, Director, New England Waste Management Officials Association

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

December 1, 2005

Mr. Gary Lallo, P.E.  
Voigt & Schweitzer, Inc.  
1000 Buckeye Park Road  
Columbus, OH 43207

Re: September 8, 2005 EPA Region I Regulatory Interpretation

Dear Mr. Lallo:

This letter is in response to your letter dated October 12, 2005, in which you state that you disagree with a Regulatory Interpretation issued by our office on September 8, 2005. Our interpretation, conveyed in a letter to your consultant Mr. Hank Stonerook of Stone Environmental, concluded that the contaminated zinc chloride solution from your Voigt & Schwietzer (V&S) facility in Taunton, Massachusetts, which is sent to the Zaclon LLC facility in Cleveland, Ohio (Zaclon), is a hazardous spent material being reclaimed, and thus is subject to RCRA regulation. You assert in your letter that the recycled zinc chloride solution is instead an intended by-product of your pre-treatment process which is used as a raw material at the Zaclon facility, and that nothing is reclaimed from that solution.

The basis for our determination in the September 8, 2005 letter begins with the EPA definition for spent material in 40 C.F.R. § 261.1. As we noted, a spent material is a material that has been used, and as a result of such use becomes contaminated to such a point that the material can no longer serve the purpose for which it was produced without further processing. The material in question is the contents of the stripper tank, the stripper solution. In our letter we concluded that the stripper solution was a spent material based on the fact that the virgin material that you use becomes contaminated during your manufacturing process. V&S ships the stripper solution off-site when the stripping tanks need to be recharged due to a build up of zinc chloride and other contaminants in the tank. We further based our conclusion on the fact that your facility is no longer able to use the stripper solution in its process when the decision is made to remove the solution from service and ship it off-site.

The argument that the material is a by-product of your pre-treatment process was not mentioned in the initial letter from your consultant. However, we will address this assertion now. The EPA defines by-product in 40 C.F.R. § 261.1 as including materials such as slags or distillation

CONCURRENCES							
SYMBOL	CHW	OR	CHW				
SURNAME	CHW	OR	CHW				
DATE	11/29/05	11/29/05	11/29/2005				

States and the EPA. You may wish to consult with your own legal counsel about this matter.

RCRA requires that your hazardous spent material being reclaimed be handled as a hazardous waste while on site at your generating facility. It further requires that the material be shipped under manifest and only to a facility able to receive manifested hazardous wastes. We urge you to take steps to begin complying with these RCRA requirements as promptly as possible. If Zaclon persists in not taking the steps sought by Region V and Ohio, so as to not be able to legally receive this hazardous waste, you will need to redirect your material to another facility in order to comply with RCRA requirements.

Finally, we wish to clear up some possible confusion about the Massachusetts requirements. In your consultant's initial letter to us, he erroneously stated that if your material is indeed used as a raw material by Zaclon (without reclamation), then no Massachusetts recycling permit is required. Actually, Massachusetts follows the federal requirements by specifying that spent materials being reclaimed must be handled as fully regulated hazardous wastes. However, Massachusetts is more stringent than the federal requirements in specifying that companies that are shipping hazardous secondary materials for reuse without reclamation must file a notification and obtain a Class A recycling permit. Thus, even if Zaclon were to prevail in its litigation, and even if EPA and Ohio then agreed that your material was a material being reused without reclamation and/or a by-product, you would still need to follow the more stringent Massachusetts requirements. For now, however, you should instead follow the full federal and state requirements applicable to fully regulated hazardous spent materials being reclaimed.

Sincerely,

Marv Rosenstein,  
Chief, Chemical Management Branch

enclosures

cc: William Sirull, MADEP  
James Miller, MADEP  
Michael Cunningham, EPA Region V  
Thomas Nash, EPA Region V  
Karen Nesbit, Ohio EPA  
Ernie Waterman, EPA Region 1  
Jeff Fowley, EPA Region 1  
Sharon Leitch, EPA Region 1

AUG 13, 1985

Mr. Paul Gowen  
Environmental Engineer  
Texas Instruments, Inc.  
P.O. Box 225214  
Dallas, Texas 75265

Dear Mr. Gowen:

This is in response to your letter dated June 18, 1985, regarding the regulatory status of drosses that are sent for reclamation other than in a manner constituting disposal or burning for energy recovery. In particular, you request that I confirm an interpretation given to you by the RCRA/Superfund Hotline that drosses (that are generated in soldering integrated circuits to printed circuit boards) which are sent to a secondary smelter to recover lead are excluded from regulation under the hazardous waste provisions of the Resource Conservation and Recovery Act.

In general, I agree with the interpretation; these solder drosses are defined as by-products under the hazardous waste rules. (A by-product is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process.) Since unlisted by-products (which this material is) sent for reclamation are not defined as solid wastes, these materials are not hazardous wastes. See 40 CFR 261.2 (c) (3); see also 50 FR 633, January 4, 1985, for basis for our decision. Therefore, they are excluded from regulatory control under Subtitle C of RCRA.

You also requested guidance and possible examples of what the differences are between "by-products" and "spent materials." A spent material is a material that has been used and as a result of such use becomes contaminated to such a point that the material can no longer serve the purpose for which it was produced without processing. Put another way, a spent material is a contaminated virgin material that must be reprocessed before it can be reused. The most common examples are: spent solvents, spent acids, spent plating solutions, spent pickle liquor, spent catalysts, and spent lead-acid batteries. By-products, on the other hand, are residues that result from manufacturing or other operations that are not one of the primary products that are produced. Some common examples are 3 distillation residues, slags, drosses, and tank bottoms.

I hope this letter responds to your request; please feel free to give me a call if I can be of any further assistance. My telephone number is (202) 475-8551.

Sincerely,

Matthew A. Straus, Chief  
Waste Identification Branch

Faxback 11101

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

<b>IN THE MATTER OF:</b>	)	<b>DOCKET No. RCRA-05-2004-0019</b>
	)	
<b>Zaclon, Inc.;</b>	)	
<b>Zaclon, LLC;</b>	)	
<b>Independence Land</b>	)	
<b>Development Company;</b>	)	<b>Honorable Susan L. Biro</b>
<b>2981 Independence Road</b>	)	<b>Chief Administrative Law Judge</b>
<b>Cleveland, Ohio 44115</b>	)	
<b>EPA ID No. OHD 004 184 768</b>	)	
	)	
<b><u>Respondents</u></b>	)	

**COMPLAINT AND COMPLIANCE ORDER**

**I. SECOND AMENDED COMPLAINT**

**Preliminary Statement and Jurisdiction**

1. This is a civil administrative action instituted under Section 3008(a) of the Solid Waste Disposal Act, as amended, also known as the Resource Conservation and Recovery Act of 1976, as amended (RCRA), 42 U.S.C. § 6928(a). RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments of 1984 (HSWA). This action is also instituted pursuant to Sections 22.01(a)(4), 22.13 and 22.37 of the "Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Issuance or Compliance or Corrective Action Orders, and the Revocation, Termination or Suspension of Permits" ("Consolidated Rules"), 40 CFR Part 22.
2. Jurisdiction for this action is conferred upon U.S. EPA by Sections 2002(a)(1), 3006(b), and 3008 of RCRA; 42 U.S.C. §§ 6912(a)(1), 6926(b), and 6928.

61 Fed. Reg. 54950 (October 23, 1996). The U.S. EPA-authorized Ohio regulations are codified at Ohio Administrative Code (OAC) Chapters 3745-49 through 69. See also 40 C.F.R. § 272.1800 *et seq.*

7. Pursuant to Section 3006(g) of RCRA, 42 U.S.C. §6926(g), U.S. EPA must carry out the new requirements promulgated pursuant to the HSWA, Pub. L. 98-616, until such time as the State is authorized to carry out such program. Under the terms of Section 3006(g), the requirements established by HSWA are effective in all States regardless of their authorization status and are implemented by U.S. EPA until the State is granted final authorization with respect to those requirements.
8. Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), provides U.S. EPA with the authority to enforce State regulations in those States authorized to administer a hazardous waste program.
9. U.S. EPA has provided notice of commencement of this action to the State of Ohio pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2).

#### **General Allegations**

10. Respondents are Zaclon, Inc., Zaclon LLC, and Independence Land Development Company which were and are incorporated under the laws of Ohio. Hereinafter the term Respondents is used both collectively and alternatively to refer to all or any one of the three entities named above.
11. Respondents own and operate a facility located at 2981 Independence Road, Cleveland, Ohio ("the facility").

treatment sludge, and thus qualified for interim status in accordance with RCRA § 3005(e).

21. Dupont submitted a closure plan, dated May 10, 1985, to the Ohio Environmental Protection Agency (OEPA) outlining the activities which would be conducted for the removal of all hazardous waste from the chlorides production process and wastewater treatment sludge from the waste pile storage and treatment area.
22. In a letter dated March 5, 1987, OEPA informed DuPont that all activities concerning closure of the pile had been completed, and that DuPont would maintain only the status of a generator.
23. One of the Respondents, Zaclon Inc., purchased the facility from DuPont in June of 1987.
24. Section 3005(j) and 40 CFR § 270.1(c) requires owners of hazardous waste management units that certified closure after January 26, 1983 to obtain a post-closure permit, unless they demonstrate closure by removal under § 270.1(c)(5) and (6).
25. One of the Respondents, Zaclon Inc., submitted an equivalency demonstration, dated June 2, 1992, for closure of the waste pile pursuant to 3005(i) of HSWA and 40 CFR § 270.1(c)(5) and (6).
26. U.S. EPA approved Zaclon Inc.'s June 2, 1992, equivalency demonstration by letter dated September 25, 1992.
27. Neither DuPont nor any of the Respondents have ever submitted a RCRA Part B permit application for a hazardous waste management unit at the facility.

**COUNT 1: Storage of Hazardous Waste Without a Permit or Interim Status**

37. Complainant incorporates paragraphs 1 through 36 of this Complaint as though set forth in this paragraph.
38. The sash and baghouse dust was stored at the facility for at least six years prior to the September 19, 2002, sampling event.
39. The sash stored at the facility meets the definition of a by-product found at OAC 3745-51-01(C)(3) and 40 CFR 261.1(c)(3).
40. The baghouse dust stored at the facility meets the definition of a sludge found at OAC 3745-51-01(C)(2) and 40 CFR 261.1(c)(2).
41. U.S. EPA conducted a Toxicity Characteristic Leaching Procedure (TCLP) test on the ten sash and five baghouse samples collected on September 19, 2002, for cadmium, chromium, and lead using test Method 1311.
42. Nine of the ten sash samples had a lead level above the toxicity characteristic regulatory level of 5.0 milligrams per liter (mg/L). Six of the ten sash samples had a cadmium level above the toxicity characteristic regulatory level of 1.0 mg/L.
43. Three of the five baghouse samples had a lead level above the toxicity characteristic regulatory level of 5.0 milligrams per liter (mg/L). Four of the five baghouse dust samples had a cadmium level above the toxicity characteristic regulatory level of 1.0 mg/L.
44. The sash and baghouse dust stored at the facility at the time of the September 19, 2002, sampling event exhibited the toxicity characteristic for lead and cadmium.
45. Pursuant to OAC 3745-51-02(C)(4) and 40 C.F.R. § 261.2(c)(4), sludges and by-

pile in torn bags in such a manner that the material could escape into the environment, and thus in a manner constituting disposal, for at least six years prior to the September 19, 2002, sampling event

52. For at least six years prior to the September 19, 2002, sampling event the sash and baghouse dust stored at the facility was a hazardous waste.
53. Section 3005(a) of RCRA, 42 U.S.C. §6925(a) and the regulations at OAC 3745-50-45 [40 CFR Part 270] state that the treatment, storage, or disposal of hazardous waste by any person who has not applied for or received a permit, or interim status, is prohibited.
54. Neither U.S. EPA nor the State of Ohio have issued a permit to Respondents' facility to treat, store, or dispose of hazardous wastes.
55. As noted in paragraph 28 above, Respondents' facility did not have interim status for the treatment, storage, or disposal of hazardous wastes after November 8, 1985.
56. Respondents are therefore in violation of Section 3005(a) of RCRA, 42 U.S.C. §6925(a) and the regulations at OAC 3745-50-45 [40 CFR Part 270].

**COUNT 2: Storage of Hazardous Waste Without a Permit or Interim Status**

57. Complainant incorporates paragraphs 1 through 36 of this Complaint as though set forth in this paragraph.
58. An average of about 272,000 pounds per month of spent stripping acid has been, since the mid-1990s, and continues to be, accepted at the facility from at least ten

69. Section 3005(a) of RCRA, 42 U.S.C. §6925(a) and the regulations at OAC 3745-50-45 [40 CFR Part 270] state that the treatment, storage, or disposal of hazardous waste by any person who has not applied for or received a permit, or interim status, is prohibited.
70. Neither U.S. EPA nor the State of Ohio have issued a permit to Respondents' facility to treat, store, or dispose of hazardous wastes.
71. As noted in paragraph 28 above, Respondents' facility did not have interim status for the treatment, storage, or disposal of hazardous wastes after November 8, 1985.
72. Respondents are therefore in violation of Section 3005(a) of RCRA, 42 U.S.C. §6925(a) and the regulations at OAC 3745-50-45 [40 CFR Part 270].

## **II. PROPOSED CIVIL PENALTY**

Complainant proposes to assess Respondents a civil penalty of \$394,143 for the violations alleged in this Complaint.

The Administrator of U.S. EPA may assess a civil penalty of up to \$25,000 per day for each violation of Subtitle C of RCRA according to Section 3008 of RCRA, 42 U.S.C. § 6928. The Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996, 31 U.S.C. § 3701, required U.S. EPA to adjust its penalties for inflation on a periodic basis. Pursuant to the Civil Monetary Penalty Inflation Adjustment Rule, published at 40 C.F.R. Part 19, U.S. EPA may assess a civil penalty of up to \$27,500 per day for each violation of Subtitle C of RCRA occurring or continuing on or after January 31, 1997.

Michael Cunningham  
Waste, Pesticides & Toxics Division (DE-9J)  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

A transmittal letter identifying this Complaint shall accompany the remittance and the copy of the check.

### **III. COMPLIANCE ORDER**

Based on the foregoing, Respondents are hereby ordered-- pursuant to authority in 3008(a) of RCRA, 42 U.S.C. § 6928(a), and § 22.37(b) of the Consolidated Rules-- to comply with the following requirements immediately upon the effective date of this Order:

1. Respondents shall not treat, store, or dispose of hazardous waste without a RCRA permit.
2. Respondents shall, within 30 days of the effective date of this Order, submit to OEPA for approval a closure plan and documentation of financial responsibility pursuant to OAC 3745-66-10 through 48 [40 CFR Part 265 Subpart G and H] for all hazardous waste storage and treatment units at the facility.
3. Respondents shall implement the closure plan as approved by OEPA.
4. Respondents shall notify U.S. EPA in writing upon achieving compliance with this Order within 15 calendar days after the date it achieves compliance. If Respondent has not taken or completed any requirement of this Order, Respondent shall notify U.S. EPA of the failure, its reasons for the failure, and the proposed date for compliance within 10 calendar days after the due date set forth in this Order.

Complaint. The Answer shall also state:

1. The circumstances or arguments alleged to constitute the grounds of defense;
2. the facts Respondents intend to place at issue; and
3. whether Respondents request a hearing.

Where Respondents state that they have no knowledge of a particular factual allegation, the allegation is deemed denied. Respondents' failure to admit, deny, or explain any material fact in the Complaint constitutes an admission of that allegation. Consolidated Rules at § 22.15.

Respondents must file their Answer with the Regional Hearing Clerk (R-19J), U.S. Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604. A copy of the Answer and any subsequent documents filed in this action should be sent to Thomas Nash, Office of Regional Counsel (C-14J), U.S. Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604-3590. Thomas Nash may be telephoned at (312) 886-0552

If Respondents fail to file a timely written Answer to the Complaint, with or without a request for a hearing, the Regional Administrator or Presiding Officer may issue a Default Order pursuant to § 22.17 of the Consolidated Rules. For purposes of this action only, default by Respondents constitutes an admission of all facts alleged in the Complaint and a waiver of Respondents' right to a hearing on the factual allegations under Section 3008 of RCRA, 42 U.S.C. § 6928. Default will also result in the penalty proposed in the Complaint becoming due and payable by Respondents without further proceedings 30 days after issuance of a final order upon default under § 22.27(c) of the Consolidated Rules. In addition, default will preclude Respondents from obtaining adjudicative review of any of the provisions contained in the Compliance Order section of the Complaint.

The issuance of a CAFO shall constitute a waiver of Respondent's right to request a hearing on any stipulated matter in the CAFO.

Dated this 14 day of October, 2005.

S.

Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
U.S. Environmental Protection Agency  
Region 5

Complaint Docket No. RCRA-05-2004-0019



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Road  
Twinsburg, OH 44087-1924

TELE: (330) 963-1200 FAX: (330) 487-0769  
www.epa.state.oh.us

Bob Taft, Governor  
Bruce Johnson, Lieutenant Governor  
Joseph P. Koncelik, Director

November 14, 2005

RE: ZACLON LLC  
CUYAHOGA COUNTY  
OHD 004 184 768  
LQG CEI NOTICE OF VIOLATION

**CERTIFIED MAIL**

Mr. John Curry  
Quality Assurance/Compliance Regulatory Manager  
Zaclon LLC  
2981 Independence Road  
Cleveland, Ohio 44115-3699

Dear Mr. Curry:

On August 10, 11 and 12, 2005, the Ohio EPA conducted a compliance evaluation inspection (CEI) of Zaclon LLC's (Zaclon), Cleveland, Ohio facility to determine Zaclon's compliance with Ohio's hazardous waste laws and regulations as found in the Ohio Revised Code and the Ohio Administrative Code ("ORC" and "OAC" respectively). Zaclon was represented by Joseph Turgeon, Jon Hall, James Krimmel, Joseph Busovicki and you. Suzanne Prusnek and I represented the Ohio EPA. Mitch Mathews, also with Ohio EPA was present on August 10, 2005.

Zaclon is a manufacturer of both specialty and basic chemicals. These chemicals include ammonium chloride, zinc chloride, chrome complexes, galvanizing fluxes (zinc ammonium chloride), potassium silicate, potassium acetate, and other specialty products including a rubber accelerator.

Zaclon is a large quantity generator of hazardous waste (greater than 1000 kg per month generated). The wastes generated at Zaclon include an ignitable waste (D001) from the production of the accelerator, a heavy metal (cadmium (D006) and lead (D008)) contaminated sludge from the production of zinc chloride, and a heavy metal (D006 and D008) contaminated debris from the use of SASH in the production of zinc chloride. Zaclon also generates a sludge from the production of the galvanizing fluxes currently managed as a hazardous waste for heavy metals (D006 and D008) but this waste may be recharacterized as nonhazardous due to production changes.

Ohio EPA's compliance inspection included an inspection of the facility operations and a review of written documentation. Based on this inspection, Ohio EPA has determined that Zaclon has violated at least the following state hazardous waste regulations:

**Violations:**

- 1.a. ***Establishing and operating a hazardous waste facility without a permit and storing hazardous waste without a permit, Ohio Revised Code (ORC) § 3734.02***

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Since neither US EPA nor Ohio EPA have issued a permit to Zaclon to store and/or dispose hazardous waste, Zaclon has created a hazardous waste storage and disposal unit subject to the permitting requirements and has been operating the pile without a permit in violation of ORC § 3734.02 (E) and (F) and all the applicable requirements in OAC rules 3745-56-50 through 3745-56-59.

You must immediately begin to control the run off and tracking from the waste pile pad area. Methods to achieve this may include immediate removal of the hazardous waste for appropriate off-site management or containerizing all remaining hazardous waste (SASH material). Also, you must prepare and submit for Ohio EPA's approval a closure plan in accordance with OAC rule 3745-56-58(C).

- 1.b. Zaclon stored and disposed hazardous waste (baghouse dust) in a waste pile without a permit. U.S. EPA noted during the August 22, 2001 inspection, baghouse dust was being managed on a ledge several feet away from the SASH pile. On September 19, 2002, US EPA took five samples of the baghouse dust. In a letter dated December 17, 2002, US EPA sent the facility a copy of the Method 1311, Toxicity Characteristic Leaching Procedure analytical results for the samples taken during the September 19, 2002 sampling event. The results of the TCLP test indicate that three of the five samples collected were above the regulatory level of 5.0 mg/L for lead. Four of the five samples had cadmium levels above the regulatory level of 1.0 mg/L.

The baghouse dust meets the definition of a sludge per OAC rule 3745-51-01 (C)(2). The material was on site for at least six years and was accumulated speculatively. Since the baghouse dust is a waste and exhibited a characteristic, Zaclon managed/disposed of a hazardous waste without a permit, in violation of ORC § 3734.02(E) and (F).

Per Zaclon, since US EPA's 2001 inspection all of the baghouse dust has been consumed in the process at Zaclon and the area where it was stored is no longer being used for storage of hazardous waste. You must also prepare and submit for Ohio EPA's approval a closure plan in accordance with OAC rule 3745-56-58(C).

- 1.c. Zaclon receives and stores hazardous waste spent stripping acid from off-site facilities. As noted above, Zaclon does not hold a hazardous waste permit. The stripping acid is stored in two tanks at the facility prior to use. To use the stripping acid, Zaclon must put the acid through a two step reclamation process. During the August 2005 inspection, the Zaclon representatives told Ohio EPA that if raw materials were used in the process, these reclamation steps would not be necessary. The stripping acid does not meet the requirements set forth in OAC rule 3745-51-02(E)(1)(a) since it is not directly used or reused in an industrial process to make a product without being reclaimed.

Zaclon therefore needs to either put this hazardous waste directly into the reclamation portion of the system without any prior storage, cease receiving this spent stripping acid hazardous waste permanently, or cease receiving this spent stripping acid hazardous

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- iii. The rags and solvents used to clean at the facility. The potential contaminants and solvents getting on the rags need evaluated for all the different areas in the facility that use rags. This should be specifically documented and if necessary a hazardous waste management protocol developed.
- iv. The sock filters found in a bin next to the CWZ used to filter the zinc chloride. Ohio EPA has concerns that the filters may be contaminated with heavy metals during the processing of the SASH.
- v. Ohio EPA noted a red unlabeled drum and an unlabeled pail in Shop #2.
- vi. There was spent oil dry by the hazardous waste roll off box in (under) BLDG #39. It was unclear as to how this waste is characterized and managed.
- vii. There was a significant amount of oil dry in the accelerator building near the satellite accumulation area. Since the accelerator hazardous waste is characteristically hazardous for ignitability (D001) and benzene (D018) it needs to be determined if the floor dry exhibits any of these characteristics.
- viii. Ohio EPA noted floor dry being used at both hazardous waste sludge generation points at the facility. Zaclon needs to determine if these are hazardous waste; if so, they need to determine if it can be placed in the EnviroServe roll-off boxes.

For the wastes noted above in *i* through *viii*, please document the waste characterization either through generator knowledge or analytical results. If Zaclon wants to use generator knowledge for the characterization of any of these wastes, you should include the specific MSDS and process description to substantiate the characterization.

- 2.b. Zaclon removes debris (wood, metal, supersacks, etc.) from the SASH in the waste pile as a first treatment step to make the SASH usable in the production of zinc chloride. This step generates a waste (the debris) which must be evaluated. At the time of the inspection, Zaclon was placing the debris in an unlined Waste Management roll-off box to be managed as a non hazardous waste. Zaclon representatives stated that this was the first box to be generated, previous to this, any debris remained in the waste pile.

During the inspection, Ohio EPA discussed with you various options for characterizing this waste. It is Ohio EPA's understanding that Zaclon will segregate out the scrap metal and send this off for metal recycling. The rest of the debris will be managed as characteristically hazardous debris for cadmium (D006) and lead (D008). If this is still Zaclon's intention, please confirm this in writing.

- 2.c Zaclon sent four (4) 20 yard roll-off boxes to Vexor in 2004. The waste was from the residue from a sulfuric acid tank and was shipped as a non-hazardous waste.

Zaclon should submit any toxicity characteristic leaching procedure (TCLP) analytical results they have for this material.

therefore a waste. If Zaclon claims the material is not a waste, they must demonstrate/document it is a usable product. For example, Zaclon could go through an inventorying process to demonstrate the material is not a waste.

The first step in documenting what this waste is and how it should be managed is for Zaclon to develop an inventory, with quantities, origins of the source and current locations of the waste. Ohio EPA would then encourage Zaclon to use any of the waste found in BLDG #13 in their processes if it is a legitimate use of the waste. Even if the waste cannot be used immediately, if Zaclon does not believe it to be a waste since it has value for a specific process, then that material should be managed and stored in a manner which demonstrates that it has value to Zaclon. To do this, the inventory and storage of usable material should be such that it can be found for use when a process is restarted and document/demonstrate how it can be used. Any material that cannot be used is a waste and will need to be characterized and disposed appropriately.

- 2.e The most recent analytical data for the iron mud is several years old. This mud is combined with the wastewater treatment sludge and disposed of as a non-hazardous waste. Since Zaclon has changed the process, this mud needs to be re-sampled for characterization.

Zaclon must submit the waste characterization data for the iron muds, including, but not limited to, the sampling methodology documenting the sample(s) are representative, the chain-of-custody documentation of the sample and the laboratory report.

3. **Generator Identification Number, OAC rule 3745-52-12:** A generator may not treat, store, dispose of, transport, or offer for transportation hazardous waste without having received a U.S. EPA identification number from U.S. EPA or Ohio EPA. A generator who has not received a U.S. EPA identification number must obtain one by applying to Ohio EPA using Ohio EPA form EPA9029.

The generator identification number OHD004184768 was issued to Zaclon Inc. During the inspection Ohio EPA was told that the new operator is Zaclon LLC, which is a separate legal entity from Zaclon Inc. A "generator" is defined in OAC rule 3745-50-10(A)(45) as any person, by site, whose act or process produces hazardous waste as identified or listed in Chapter 3745-51 of the Administrative Code or whose act first causes a hazardous waste to become subject to the hazardous waste rules.

While it is true that the same identification number will be issued to Zaclon LLC that was issued to Zaclon, Inc., Zaclon LLC still needs to complete EPA Form9029 to switch the number to the appropriate owner. You can renotify and have the hazardous waste identification number assigned to Zaclon LLC by going to the following web site and following the instructions for the Notification of Regulated Waste Activity form: <http://www.epa.state.oh.us/dhwm/notiform.html>.

4. **Annual Report, OAC rule 3745-52-41(A)(5):** A generator who ships any hazardous waste off site must prepare and submit to Ohio EPA the "Annual Hazardous Waste

to include the zinc muds. Exhibit H should be updated to include the weekly inspection logs currently being used at the facility. If Zaclon chooses to update the weekly inspection log to include the emergency equipment, then this copy should be included. If a separate emergency equipment log is developed, that too should be included.

6. ***Personnel Training, OAC rule 3745-52-34(A)(4); OAC rule 3745-65-16(A)(2); and OAC 3745-65-16(A)(3):*** The personnel training program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste procedures, including contingency plan implementation, relevant to the positions in which they are employed. Additionally, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment and emergency systems.

Zaclon did not include their contingency plan in the personnel training program which would include the emergency procedures, equipment and systems.

Once Zaclon has updated their contingency plan, they must train the required facility personnel on its use and submit documentation demonstrating the personnel have been trained.

7. ***Contingency Plan Requirements, OAC rules 3745-65-52(A) through (F):*** The contingency plan must include [in part] the following elements:

- a. Actions to be taken in response to fires, explosions or any unplanned release of hazardous waste
- b. A current list of names, addresses and telephone numbers (office and home) of all persons qualified to act as emergency coordinator
- c. A list of all emergency equipment, including: location, physical description and brief outline of capabilities
- d. An evacuation plan for facility personnel where there is a possibility that evacuation may be necessary.

Zaclon's contingency plan refers one to the plant safety manual for fire and disaster procedures and spill control plans. However, in the plant safety manual, there is no mention of hazardous waste. The contingency plan must be updated to include actions to be taken in response to fires, explosions or unplanned releases of hazardous waste.

The telephone numbers for the emergency coordinators should include the area codes with the telephone numbers. Also, Jon Hall will be using his cell phone as his home telephone number and this should be noted in the plan.

Mr. John Curry  
Zaclon LLC  
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On June 19, 2005, there was a fire in building #39 which involved brass fines and rolling mill fines which had been stored at Zaclon since the mid 1990's. The process which utilized these materials has not been used for a similar length of time. Since the materials were either sludges (air pollution control dust) or by-products which exhibit a characteristic of a hazardous waste that was never recycled, the materials are a hazardous waste.

The fire department was notified and responded. Since the contingency plan did not have any actions in it to follow should there be an emergency, it would be impossible to comply with OAC rules 3745-65-56(A) through (H). The facility should have submitted a report to the Director of Ohio EPA within 15 days of the incident as required by OAC rule 3745-65-56(J).

Zaclon is already revising the contingency plan per the violations noted above. Zaclon must submit the report to the Director, even though it will be late, as required by OAC rule 3745-65-56(J). A copy must be sent to this office to document compliance with this regulation.

11. ***Maintenance/Design and Operation of Facility, OAC rule 3745-65-31/OAC rule 3745-54-31:*** Facilities shall be operated to minimize the possibility of a fire explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The operation in the Accelerator Building where the ignitable waste is generated is not operated to minimize fire, explosion or any unplanned release of hazardous waste. The accelerator waste had filled the secondary containment pallet to the point it may be overflowing. There were significant amounts of contaminated floor dry in the satellite accumulation area. There was hazardous waste on top of the drums in the accumulation area. Finally, the most recent weekly inspection of this area (conducted on August 9, 2005) indicated that there were no problems in the area.

Zaclon must empty the secondary containment, clean up the floor dry and clean the tops of all the hazardous waste drums in the accumulation area and document this via photographs. In addition, the operator of the area needs to be trained in the proper management of hazardous waste. The person conducting the weekly inspections needs to be trained in noting these problems and ensuring that if they occur again, that the problem is addressed immediately.

Zaclon must control the ongoing releases of hazardous waste from the hazardous waste pile (SASH pile). Zaclon must containerize or somehow remove the material from the pad to eliminate the tracking, run off and wind dispersal of the hazardous waste.

Documentation (e.g. photographs, etc.) demonstrating that these waste areas are now being maintained and operated in accordance with the rule should be submitted to document compliance.

Zaclon must label these containers and submit photographs documenting the containers have been labeled. In addition, Zaclon must submit documentation describing the standard operating procedures that have been instituted to prevent reoccurring violations of this rule.

15. ***Labeling Requirements for Hazardous Waste Containers, OAC rule 3745-52-34(A)(3):*** Containers accumulating hazardous waste must be clearly marked with the words "Hazardous Waste."

The box containing the debris from the SASH pad was not marked with the words "Hazardous Waste."

Zaclon must label the box with the words "Hazardous Waste" and submit a photograph documenting compliance with this rule. In addition, Zaclon must submit documentation describing the standard operating procedures that have been instituted to prevent reoccurring violations of this rule.

16. ***Labeling Requirements for Hazardous Waste Containers, OAC rule 3745-52-34(A)(2):*** Containers accumulating hazardous waste must be clearly marked with the date accumulation began.

The box containing the debris from the SASH pad did not have an accumulation date on it. In addition, the box containing the heavy metal sludge from the zinc chloride production did not have the year marked on it.

Zaclon put the year on the heavy metal sludge from the zinc chloride production during the inspection. No further action is required for this container. Zaclon must submit a photograph documenting that the container of debris has been marked with an accumulation date. In addition, Zaclon must submit documentation describing the standard operating procedures that have been instituted to prevent reoccurring violations of this rule.

17. ***Requirements for Hazardous Waste Containers, OAC 3745-66-73(A):*** Containers of hazardous waste must be kept closed except when adding or removing waste.

The following containers were open at the time of the inspection:

- a. The roll off box containing the debris from the SASH pile
- b. The hazardous waste box in BLDG #39 accumulating the waste from the production of galvanizing fluxes was open.
- c. The satellite container collecting the accelerator waste in BLDG #27W had the hose from the reactor in it.

19. **Packaging of universal waste lamp, OAC rule 3745-273-13(D)(1):** Universal waste lamps must be contained in containers or packages that are structurally sound, adequate to prevent breakage, and are compatible with the contents of the lamps. In addition, the containers or packages must be closed, lack evidence of leakage, spillage or damage that could cause leakage.

The box of spent fluorescent bulbs in BLDG #39 was open. Also, there was nothing in between the bulbs to prevent possible breakage.

Ohio EPA noted three (3) spent fluorescent bulbs in the office of BLDG #14, several loose bulbs and some still in the fallen lights in BLDG #92 and several bulbs in BLDG #13. These bulbs must be collected and managed with the bulbs in BLDG #39.

Zaclon shall procure a box/container for the spent fluorescent lamps which is adequate to prevent breakage of the lamps and which can be kept closed. Zaclon shall label the box in accordance with OAC 3745-273-14 (E) (see violation 20 below) and submit a photograph demonstrating compliance with this rule.

20. **Labeling/marking- standards for small quantity handlers of universal waste, OAC rule 3745-273-14(E):** Universal waste [fluorescent] lamps shall be labeled as "Universal Waste - Lamps," "Waste Lamp(s)," or "Used Lamp(s)."

The box containing the spent fluorescent bulbs was not labeled. In addition, the various bulbs noted in violation 19 above were not labeled.

Please document via photograph(s) that all containers are labeled to document compliance with this regulation. In addition, Zaclon must submit documentation describing the standard operating procedures that have been instituted to prevent reoccurring violations of this rule.

21. **Accumulation time limits – standards for small quantity handlers of universal waste, OAC rule 3745-273-15(C):** A facility must be able to demonstrate the length of time that a universal waste has been accumulated. There are six ways to document the accumulation time:

- a. Marking or labeling the container with the earliest date when the universal waste became a waste,
- b. Marking or labeling individual item(s) of universal waste with the earliest date that it became a waste,
- c. Maintaining an inventory system on-site that identifies the date the universal waste became a waste,

The manifest to Spring Grove dated February 26, 2003 did not have line 11b on the land disposal notification for 5600 pounds of ignitable (D001), corrosive (D002) and chromium (D007) contaminated waste.

Zaclon must update their copies of the LDR and notify Chemtron and Spring Grove to be sure their copy of the LDR is also updated.

24. ***Testing, Tracking, and Recordkeeping Requirements for Generators, Treaters, and Disposal Facilities, OAC rule 3745-270-07(A)(2), Table 1:*** The generator of a hazardous waste which does not meet the treatment standard must determine the correct "treatability group(s)" (e.g. wastewater, non-wastewater, etc.)

Manifest 05007 dated August 9, 2005 to Chemtron had a waste on the manifest which in the description was noted as a "waste solid." However, on the LDR form, it was listed as a "wastewater."

Zaclon must notify Chemtron to be sure that their copy of the LDR has been corrected and correct the copy they have on site.

25. ***Retention of Land Disposal Restriction Forms, OAC rule 3745-270-07(A)(8):*** The generator must retain on site a copy of all notices, certifications, demonstrations and waste analysis data for at least three years from the last shipment of waste sent off-site.

During the inspection, Zaclon could not find the completed land disposal restriction (LDR) form for the waste shipped to Chemtron on July 15, 2004. Chemtron faxed a copy of the LDR to Zaclon during the inspection abating this violation. However, line 11a did not include the D005 waste code in violation of OAC rule 3745-270-07(A)(1).

Please demonstrate that Chemtron has been notified to correct their copy of the LDR form.

26. ***Retention of Land Disposal Restriction Forms, OAC rule 3745-270-07(A)(8):*** The generator must retain on site a copy of all notices, certifications, demonstrations and waste analysis data for at least three years from the last shipment of waste sent off-site.

During the inspection, Zaclon could not find the LDR for the zinc waste stream sent to Envirite with the waste profile number CS5377.

Zaclon must submit a copy to Ohio EPA documenting that an LDR has been completed for this waste stream.

27. ***Testing, Tracking, and Recordkeeping Requirements for Generators, Treaters, and Disposal Facilities, OAC rule 3745-270-07(A)(7),*** If a generator determines that he is managing a prohibited waste that is excluded from the definition of hazardous waste or waste, or is exempt from regulation as a hazardous waste under rule 3745-51-

the bottom of the containment could not be determined. The Zaclon representatives stated that the liquid is recycled back into the process. Ohio EPA has concerns that if this material is hazardous, which it might be depending on the materials being processed, and it was to be released from the containment, it would be a release of hazardous waste. Zaclon must empty the secondary containment, determine the condition of the containment, and make any repairs necessary. In addition, Zaclon must not allow liquids to sit in the containment; but must immediately place the liquid back into the tank if the process will allow, or into a holding container while it awaits processing.

32. Zaclon stated that a portion of BLDG #24 was going to be demolished by the end of 2005. Zaclon stated that the asbestos abatement had already occurred. Please be aware that demolition debris is subject waste characterization per OAC rule 3745-52-11. One way of minimizing the potential of the demolition debris being characterized as a hazardous waste is to remove any and all materials that may cause the waste to be hazardous. This would include mercury switches, light ballast, light fixtures, fluorescent bulbs, etc. Another step which may be taken to characterize the demolition debris is to determine if there is any lead paint on the portion of the building to be demolished.

33. OAC rule 3745-52-34(C)(1) {Satellite} Accumulation Requirements for Hazardous Waste Containers requires a generator who exceeds 55 gallons in a satellite accumulation area to move the excess from the area within three days or the area becomes subject to all of the requirements in OAC rule 3745-52-34(A) or other applicable provisions of Chapter 3745-52.

The hopper collecting the heavy metal sludge from the production of the zinc chloride can collect an excess of 55 gallons. During the inspection, it only contained approximately 50 gallons of waste. Ohio EPA discussed with you the various options Zaclon can take to maintain this area as a satellite accumulation area. It is Ohio EPA's understanding that Zaclon will empty the hopper every time the press is used, ensuring the waste will not sit in the hopper for three days or more.

Please confirm this understanding in writing. If Zaclon wishes to comply with this regulation in another manner, please document how this will be accomplished.

34. Ohio EPA had concerns when reviewing the manifests in regards to the manifest numbered 00104 to Chemtron Corporation on July 7, 2005. The concern was in regards to how Zaclon split box #12 - "Containers and Type" into two. On the top half of the box Zaclon marked "001 DF" and on the bottom, "007 DM." Zaclon also had two different quantities marked for each container type in box #13. On August 30, 2005, I spoke with a representative of PUCO and was told while it does not appear that this is a violation, Zaclon should note that 49 CFR § 172.201 (a)(2) requires the shipping description on a shipping paper and all copies thereof used for transportation purposes must be legible and printed (manually or mechanically) in English. While Ohio EPA

Mr. John Curry  
Zaclon LLC  
November 14, 2005  
Page 21

containers were labeled; many of the containers were in very poor condition, many of the containers were open allowing rain water to get in with the "usable" material and finally, Ohio EPA was not convinced Zaclon knew precisely what each container held. Ohio EPA asked that the material in the containers in poor condition be transferred to new containers. Ohio EPA also asked for the drums/containers to be labeled, drums to be closed and the drums to be managed in such a way that it is obvious the material has value to Zaclon.

The first step in documenting what this waste is and how it should be managed is for Zaclon to develop an inventory, with quantities, origins of the source and current locations of the waste. Ohio EPA would then encourage Zaclon to use any of the waste noted above in their processes if it is a legitimate use of the waste. Even if the waste cannot be used immediately, if Zaclon does not believe it to be a waste since it has value for a specific process, then that material should be managed and stored in a manner which demonstrates that it has value to Zaclon. To do this, the inventory and storage of usable material should be such that it can be found for use when a process is restarted and document/demonstrate how it can be used. Any material that cannot be used is a waste and will need to be characterized and disposed appropriately

39. Ohio EPA noted a sand blasting unit is the weld shop. Zaclon representatives stated that no waste had been disposed from the unit. Ohio EPA informed Zaclon that the waste would need to be characterized per OAC rule 3745-52-11 prior to disposal.

The Ohio EPA strongly encourages pollution prevention as the preferred approach for waste management. The first priority of pollution prevention is to eliminate the generation of wastes and pollutants at the source (i.e. source reduction). For those wastes and pollutants that are generated, the second is to recycle or reuse them in an environmentally sound manner. You can benefit economically, help preserve the environment and improve your public image by implementing pollution prevention programs. The Office of Compliance Assistance and Pollution Prevention provides compliance and pollution prevention assistance on environmental issues related to air, land and water. Their web site is: <http://www.epa.state.oh.us/opp/ocapp.html>.

The Division of Hazardous Waste Management has created an electronic news service to provide you with quick and timely updates on events and news related to hazardous waste activities in Ohio. You can find more information at the following Web link <http://www.epa.state.oh.us/dhwm/listserv.html>.

Failure to list specific deficiencies and/or violations in this communication does not relieve Zaclon from the responsibility of complying with all applicable laws, rules and regulations.

Further be advised that any instances of noncompliance can continue as subjects of pending or future enforcement actions.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

September 8, 2005

Henry R. Stonerook, P.E., DEE  
President  
Stone Environmental  
6460 Busch Blvd., Suite 105  
Columbus, OH 43229

re: Recycled Zinc Chloride Solution

Dear Mr. Stonerook:

This letter is in response to your letter dated August 1, 2005, to Ernest Waterman, Chief of the Hazardous Waste Unit at EPA, Region 1. In that letter, you request a regulatory interpretation regarding a practice by your client, V&S Taunton, who recycles stripper solution from a galvanizing process. In particular, you would like a determination from EPA that the process described is in fact raw material recycling and not the handling of hazardous waste. You also mention that the Massachusetts Department of Environmental Protection (MADEP) has indicated that a recycling permit would be required for the process. Again, you feel that your client is handling a raw material which is not subject to hazardous waste regulations and, therefore, no state recycling permit should be required.

As background to this topic, we understand that V&S Taunton is a "hot dip galvanizing" facility. The "hot dip" process involves cleaning, pickling and fluxing of steel prior to immersion in a kettle of molten zinc. The zinc coated steel parts are then quick-cooled by air-cooling and/or immersion in a water quench. Over time there is a build-up of zinc and iron chloride in the pickle tanks requiring that these tanks be recharged. In the past, the spent materials removed from the tanks were manifested off-site as a hazardous waste. V&S Taunton has modified the "hot dip" process by adding additional tanks to separate the pickling process from the stripping process, the "stripper" tanks remove zinc from fixtures and previously galvanized fabrications. The resulting material (stripper solution) is collected from the stripper tank and shipped to Zaclon, Inc., a zinc chloride manufacturer in Ohio. Zaclon uses this material as an ingredient in the manufacturing of zinc ammonium chloride galvanizing fluxes. Prior to use, the stripper solution is treated by Zaclon to remove heavy metals and iron from the zinc chloride solution. The resulting heavy metal sludges are disposed of as hazardous waste and the resulting iron hydroxides are disposed of as non-hazardous wastes.

Following a review of the information you provided and after discussions within the Region, with MA DEP, and with EPA, Region 5, we have come to the conclusion that the stripper solution removed from the stripper tanks is a solid waste. The basis for our solid waste determination is that we consider the stripper solution to fall into the category of a spent material being reclaimed (see 40 CFR Part 261.2). The definition of "spent material" includes any

CONCURRENCES							
BY:	CHW	ORC	CHW	SKB	CMG		
SURNAME:	Stonerook	Waterman	Waterman	Waterman	Waterman		
DATE:	9/8/05	9/8/05	9-8-05	9-8-05	9/13/06		

Henry Stonerook  
September 8, 2005  
Page 2

material that has been used and as a result of contamination can no longer serve the purpose for which it was originally produced without processing. A material is reclaimed if it is processed to recover a useable product. As is noted above, Zaclon treats the material prior to use. Note that the EPA has broadly interpreted spent materials to include materials which need to be reprocessed due to any impurity, factor or circumstance which causes the material to be taken out of service. See Memorandum, Shapiro to Hazardous Waste Division Directors, March 24, 1994. In addition, the EPA regulations require persons generating solid wastes to determine whether the solid waste is hazardous. 40 CFR 262.11 sets forth the generator's responsibilities to determine whether its waste is hazardous. Given the acknowledgement in your letter that the stripper solution is a hazardous material it appears likely it is also a hazardous waste.

Finally, please note that the Commonwealth of Massachusetts, in accordance with Section 3006 of the Resource Conservation and Recovery Act (RCRA), is authorized to administer and enforce the base RCRA program in lieu of the federal program. Therefore, we suggest that you continue your discussions with the MADEP regarding applicable state regulations which may go beyond the minimum federal requirements.

If you have any questions regarding this response, please do not hesitate to contact Sharon Leitch, in the Hazardous Waste Unit, at (617)918-1647.

Sincerely,

Marvin Rosenstein, Chief  
Chemicals Management Branch

enclosure

cc: E. Waterman, Chief, Hazardous Waste Unit, EPA  
K. Rota, Chief RCRA Enforcement Unit, EPA  
J. Fowley, Atty., ORC-EPA  
J. Miller, Chief, Waste Branch, MADEP  
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES  
R. Isner, Director, WEED, CTDEP  
L. Grandchamp, Chief, Waste Management, RIDEM  
S. Ladner, Supervisor, Licensing Unit, MEDEP  
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC  
G. Hunt, Section Chief, Compliance & Enforcement, MA DEP SERO  
M. Cunningham, Enforcement and Compliance Assurance Branch, EPA, Region 5

March 24, 1994.

MEMORANDUM

SUBJECT: Definition of Spent Material

FROM: Michael Shapiro, Director  
Office of Solid Waste

TO: Hazardous Waste Management Division Directors  
Regions I-X

The purpose of this memorandum is to clarify when a secondary material meets the definition of "spent material". A spent material is "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without further processing." 40 CFR §261.1(c)(1). A number of EPA Regions have requested assistance from EPA Headquarters on making regulatory determinations for secondary materials that may meet the regulatory definition of spent material. For many secondary materials this determination is important because spent materials being reclaimed are solid wastes. 40 CFR §261.2(c)(3). However, sludges and byproducts that exhibit a characteristic of a hazardous waste and commercial chemical products (whether listed or characteristic) are not solid wastes when reclaimed. 40 CFR §261.2(c).

In particular, EPA Headquarters has been asked whether in order to meet the definition of spent material, a material must: 1) be spent as a result of contamination, and 2) be nonfunctional in the sense that it could not continue to be used for its original purpose. We have consistently interpreted this definition as applying to "materials that have been used and are no longer fit for use without being regenerated." 50 FR at 618 (January 4, 1985); 48 FR at 14476 (April 4, 1983). We thus consider "contamination", as used in the definition of spent material, to be any impurity, factor or circumstance which causes the material to be taken out of service for reprocessing. (See also 50 FR at 624, indicating that the reference to contamination was added to clarify that a material such as a solvent may continue to be used for its original, though not identical, purpose and not yet be classified as a solid waste.)

Regarding whether a material must be nonfunctional to meet the definition of spent material, the fact that a material can continue to be used for its original purpose is not relevant to the issue of whether or not it is a spent material when it is clear from the facts that the material will not be used but instead will be treated by reclamation. The mere potential for continued original use does not preclude a material from being defined as spent. As stated above, the fact that it is actually removed from service establishes, as to this generator, that it can no longer serve its original purpose.

If all that were required to avoid RCRA Subtitle C regulation would be a showing that a secondary material could continue to be used, then generators would be able to circumvent RCRA simply through changing their operating practices to remove secondary materials just prior to that material being unfit for its original use. Thus, spent solvents that are heavily contaminated but might still be fit for metal degreasing (even though they were being sent to be regenerated into new solvents), spent lead-acid batteries that still had a charge (or were capable of holding a charge), and mercury-bearing thermostats removed from buildings sent for reclamation would not be subject to RCRA regulation in spite of the fact that the generator was no longer using the material but instead was sending it to be treated by reclamation.

Clearly, this result is not consistent with the cradle-to-grave purpose of RCRA Subtitle C regulation. Used materials taken out of service and sent for reclamation also pose the same risks and are handled in the same manner regardless of the reason they are taken out of service. For this reason, EPA has consistently interpreted spent materials as including materials which could continue to be used for their original purpose but are, in fact, being taken out of service for reclamation, showing that for this generator they can no longer serve the purpose for which they were produced.<2>

### Conclusion

Because spent materials being reclaimed (or to be reclaimed) are within the definition of solid waste, it is important to be able to distinguish among spent materials, other categories of solid wastes such as sludges, and products which are still in use that have not been discarded. Spent materials are distinguished from products and other categories of solid wastes in that they have been used previously and have been taken out of service and are going to be treated by reclamation. Examples of spent materials include spent lead-acid batteries, used mercury switches, spent solvents, spent catalysts and spent etchants.

This memorandum states the Agency's consistent interpretation of the existing regulations. However, EPA recognizes the issues regarding the regulatory definition of spent material and we may consider revising the regulatory definition in the future. If you have further questions on this issue, please call Mike Petruska of my staff at (202) 260-8551.

cc: Susan Bromm  
Susan O'Keefe  
NEIC, Frank Covington

1 See 50 FR at 650 (January 4, 1985), indicating that spent batteries, spent mercury, spent acids and

August 1, 2005

Mr. Ernest Waterman, Chief  
Hazardous Waste Unit, Office of Ecosystem Protection  
U.S. Environmental Protection Agency – New England Office  
One Congress Street  
Suite 1100, Mail Code: CHW  
Boston, MA 02114

**RECEIVED**  
AUG - 2 2005  
HAZARDOUS WASTE PROGRAM UNIT

**Request for Determination  
Recycled Zinc Chloride Solution**

Dear Mr. Waterman:

Stone Environmental Engineering & Science, Inc. (Stone Environmental) represents V&S Taunton Galvanizing, LLC, (V&S Taunton) a hot-dip galvanizing facility that has a new, state-of-the-art operation in Taunton, MA. The facility opened for business in late 2003. V&S Taunton is part of Voigt & Schweitzer, Inc. which operates hot-dip galvanizing plants in several eastern states including Ohio, Michigan, Pennsylvania (two facilities), West Virginia, Virginia, and New Jersey.

The purpose of this letter is to formally request a determination from U.S. EPA that the zinc chloride generated from the V&S Taunton operations is a recycled material and is not subject to regulation as a RCRA hazardous waste. We are providing the following information to you to aid in your determination:

- Description of the galvanizing operations at V&S Taunton; and,
- Confidential information from Zaclon, the company which purchases the zinc chloride from V&S Taunton.

Please note that V& S Taunton received a notice of violation from Massachusetts DEP (MADEP) for not having a recycle permit for this material. We have since filed an application with MADEP for this permit, but we believe that if the material in question is indeed a raw material for Zaclon's operation, then no state permit is required. As the notice of violation and a pending consent decree are currently being considered, we would appreciate a quick response from you concerning your evaluation of this situation. Please contact me if you have any questions.

Sincerely,  
**Stone Environmental**

*Henry R. Stonerook*

Henry R. Stonerook, P.E., DEE  
President

Enclosures

## **DESCRIPTION OF GALVANIZING OPERATIONS V&S TAUNTON GALVANIZING, LLC**

V&S Taunton Galvanizing is a "hot dip galvanizing" operation that coats steel fabrications made by various customers with zinc metal to provide enhanced corrosion protection. The hot dip galvanizing operation is comprised of cleaning, pickling, and fluxing the steel prior to immersion in a kettle of molten zinc. The zinc coated steel parts are then quenched (quick cooled) either by air-cooling and/or by immersion in a water quench. A flow chart of the hot dip galvanizing process is presented in Figure 1.

The plant galvanizes large and small structural steel fabrications as well as small parts. The steel is chained, wired or otherwise packed in fixtures which are used as well during the dipping in the hot molten zinc. The chains, wires, and fixtures are reused as part of the operation. In traditional hot dip galvanizing, these devices would be coupled to the next batch of fabrications and then passed through the regular pickle tanks as shown in the flow chart. Over time, this resulted in a build up of zinc chloride and iron chloride in the pickle tanks. When the pickle tank needed to be recharged, the liquids were manifested off-site as hazardous waste material.

By themselves, both zinc chloride and iron chloride are good raw materials. Zinc chloride is a common product used in the film industry and to make fluxes. Iron chloride is a common product for use as a water treatment chemical. When combined, the mixture is not usable, and separating the zinc chloride from the iron chloride is complicated and costly.

Recognizing an opportunity, Voigt & Schweitzer has invested in additional tanks to separate the pickling process from the stripping process. At all of its North American operations, including V&S Taunton, Voigt & Schweitzer uses a separate tank (stripper) to remove the zinc from the fixtures as well as from fabrications that have previously been galvanized. The resulting material can be used directly by zinc chloride manufacturers like Zaclon, Inc. The alternative is for them to dissolve zinc substrates in hydrochloric acid as a pre-stage process.

In addition to the zinc chloride solution, the iron chloride solution from the other pickling tanks is a usable feed material for producers of iron chloride such as Dupont.

### **Transportation**

The zinc chloride is transferred by tanker truck as a hazardous material to Zaclon's facility in Cleveland, Ohio. The trucks collect the zinc chloride directly from the stripper tank at the V&S Taunton facility.

### **Zaclon Process Description**

Attached is a detailed description of Zaclon's processing of zinc chloride at its operations in Cleveland. Zaclon requests that this information be kept confidential.

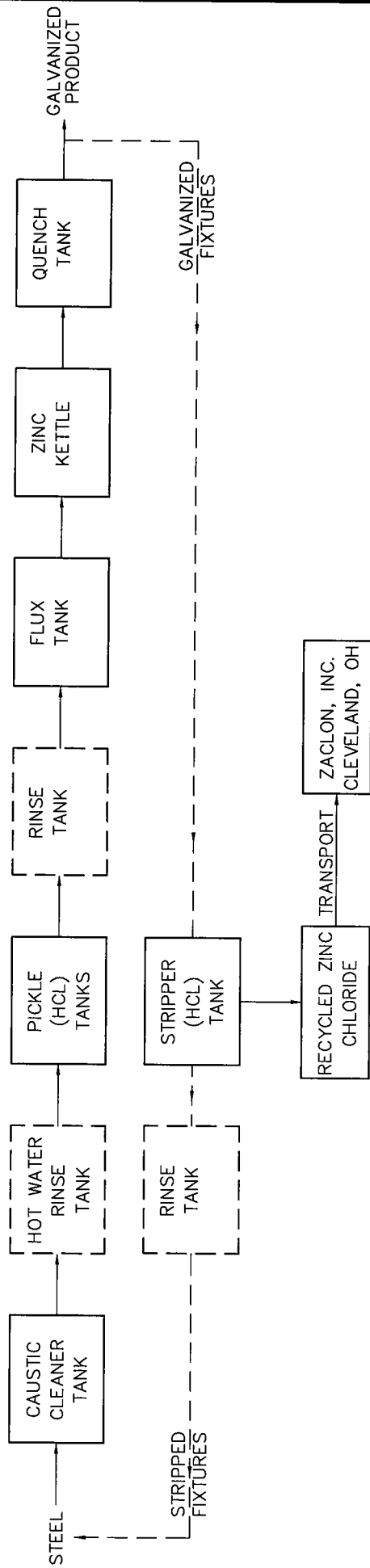


FIGURE 1

PROCESS FLOW DIAGRAM  
HOT DIP GALVANIZING PROCESS  
V&S TAUNTON GALVANIZING  
TAUNTON, MASSACHUSETTS

DATE: AUGUST, 2005

**Sto. Environmental**  
Engineering & Science, Inc.  
6460 Busch Blvd. Suite 105  
Columbus, Ohio 43229  
614-888-8041 Fax 614-888-8043



June 16, 2005

Werner Niehaus  
President  
Voigt & Schweitzer USA  
1000 Buckeye Park Road  
Columbus, Ohio 43207

Dear Werner,

This letter and related attachments is provided to describe Zaclon's use of your stripping acid (also referred to as "Zinc Chloride Solution - Crude Grade, Galvanizer's Strip Acid" in Zaclon Raw Material Specification # 027692) as a raw material in our manufacture of galvanizing fluxes. In chemical manufacturing, the term "raw material" is commonly used to mean an ingredient suitable for use to produce a finished product. In this case, the finished product is Zinc Ammonium Chloride galvanizing fluxes. The information being provided is proprietary and confidential. You may, however, share this information with those who have a need to know it within your own organization as well as with your environmental consultants and regulatory agencies. Please do not share it with others.

Zaclon's manufacturing process to produce galvanizing fluxes is complex. Zaclon uses both primary and secondary sources of zinc and zinc chloride to produce galvanizing fluxes. Some of these sources are solid materials, and some are liquids. Stripping acid is one of the liquid secondary raw materials used. A simplified block diagram flow sheet of the overall process is attached. This diagram is labeled "ZINC PRODUCTS FLOW SHEET - OVERALL ZINC PRODUCTS.

→ Stripping acid is received and unloaded into intermediate storage tanks. In these storage tanks, the stripping acid is often mixed with other zinc chloride solutions that have been produced by Zaclon by reacting zinc containing solid secondary materials with hydrochloric acid. These zinc chloride solutions are then transferred to two treating steps prior to concentration to remove water. The two treating steps involve basicity adjustment and reaction with oxidizers and sequestering agents to remove heavy metals and iron from the zinc chloride solution. These treating processes are proprietary and are labeled TRACE METAL RECOVERY and IRON RECOVERY on the block diagram. The term "recovery" is misleading since Zaclon recovers neither the heavy metals nor the iron, but rather disposes of the heavy metal sludges as hazardous waste and the iron hydroxides as non-hazardous wastes. Following the treating steps, the zinc chloride solution is concentrated (cooked) to remove water and then fed into the SOLID ZACLON PROCESS to manufacture fluxes.

A second simplified flow sheet labeled ZINC PRODUCTS DEPT. FLOW SHEET - ZINC AMMONIUM CHLORIDE PROCESS is attached. In the Zinc Ammonium Chloride manufacturing process, Zinc Chloride solution is combined with Ammonium Chloride (produced by reacting Anhydrous Ammonia with Hydrochloric Acid) in a neutralizer. The

**Confidential**

2981 INDEPENDENCE RD. CLEVELAND, OHIO 44115-3699  
GENERAL OFFICE (216) 271-1601

- 2 -

June 16, 2005

Zinc Ammonium Chloride solution is then filtered and crystallized to form the solid fluxes that are sold to galvanizers.

Zaclon's use of stripping acid as a raw material in the manufacture of Zinc Ammonium Chloride galvanizing fluxes was extensively reviewed by the Ohio Environmental Protection Agency (OEPA) in 1994. The OEPA's conclusion is that the stripping acid is not a waste since it is employed as an ingredient in an industrial process to make a product. A copy of a letter from the OEPA dated December 23, 1994 is attached. A more recent review of Zaclon's use of secondary materials by the United States Environmental Protection Agency (USEPA) has resulted in no issues related Zaclon's use of stripping acid as a raw material nor to its' RCRA exemption under federal law. Zaclon procures stripping acid as a raw material and manages it as such on our facility. A copy of Zaclon's Raw Material Specification # 027692 is attached.

One question which was raised by the Massachusetts Department of Environmental Protection in a phone conversation earlier this year relates to the notation in Zaclon's raw material specification which states that "MATERIAL NOT MEETING SPECIFICATION IS ACCEPTABLE". This is not an uncommon provision of a raw material specification and does not change the conclusions reached by Zaclon and the OEPA that stripping acid, as used by Zaclon in the manufacture of galvanizing fluxes, is not a waste. Nevertheless, Zaclon is considering revising our specification to eliminate this notation.

Werner, I hope that this information will be helpful to you. Should you require additional information, please feel free to call me.

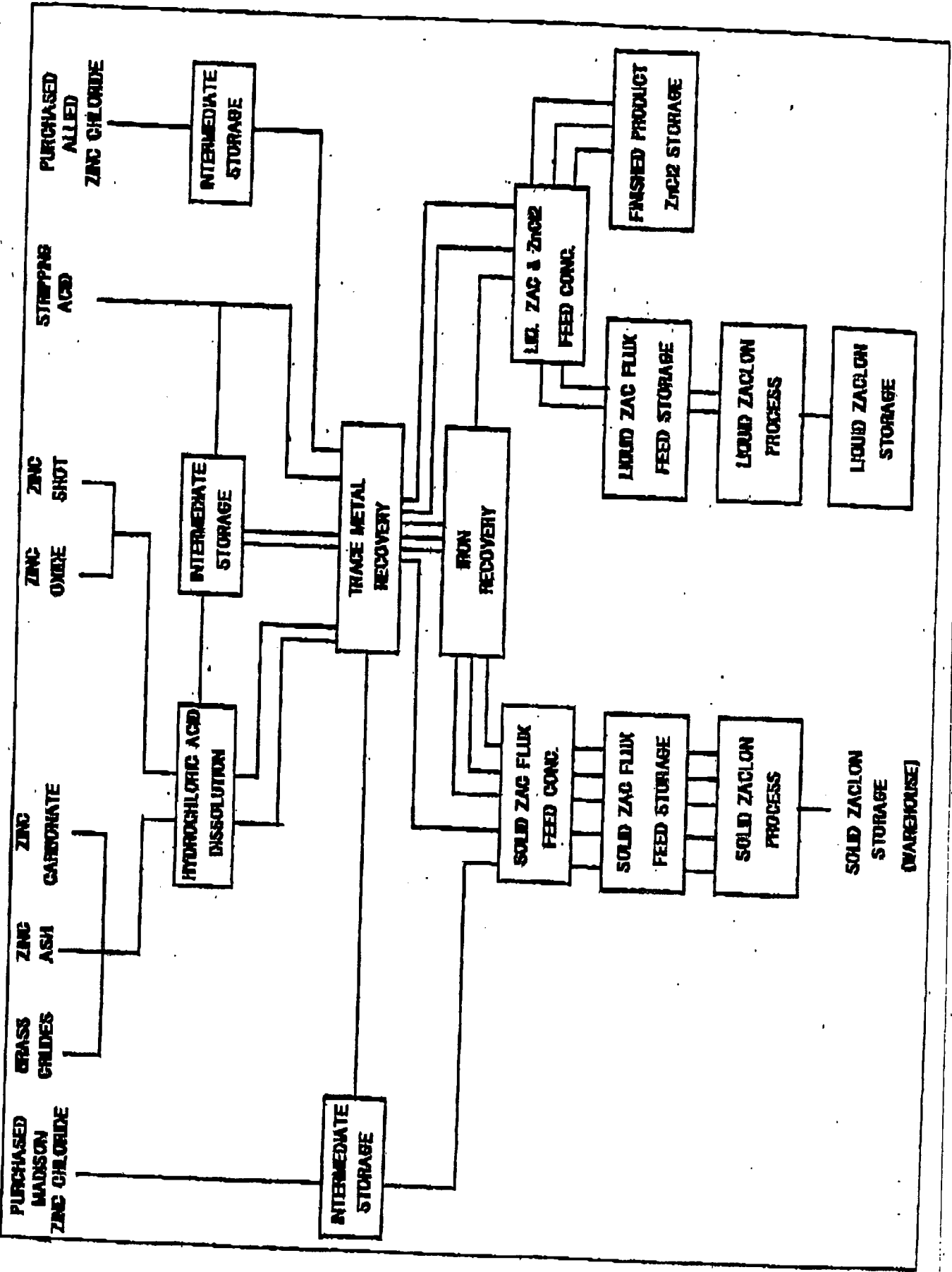
Sincerely,



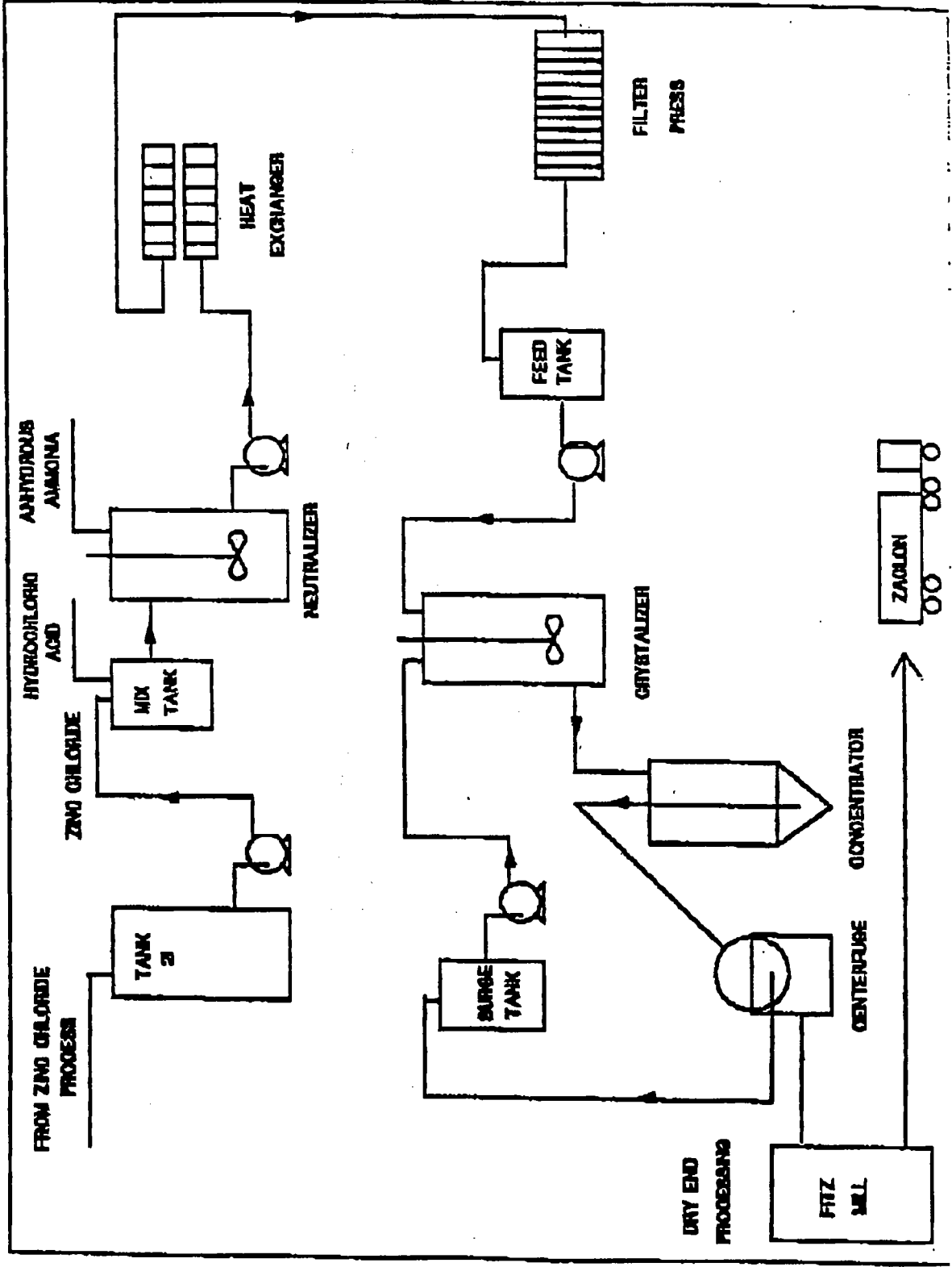
James B. Krimmel  
President  
Zaclon, LLC  
cc: JTT - Zaclon  
BMW - Zaclon

**Confidential**

# "CONFIDENTIAL INFORMATION"



"CONFIDENTIAL INFORMATION"





State of Ohio Environmental Protection Agency

**Northeast District Office**

2110 E. Aurora Road  
Twinsburg, Ohio 44087-1969  
(216) 425-9171  
FAX (216) 487-0769

George V. Voinovich  
Governor

December 23, 1994

RE: ZACLON, INC.  
OHD 004 184 768

**CERTIFIED MAIL**

Mr. James Krimmel, President  
Zaclon, Inc.  
2981 Independence Road  
Cleveland, Ohio 44115

Dear Mr. Krimmel:

On January 5, 1994, I conducted a hazardous waste inspection of your facility at 2981 Independence Road in Cleveland, Ohio. The purpose of this inspection was to assess compliance with Ohio regulations applicable to a generator of hazardous waste. Kristen Switzer and I conducted the inspection for the Ohio EPA with Zaclon represented by Joe Busovicki and yourself. A copy of the RCRA Inspection Report is enclosed for your information.

Zaclon is a large quantity generator of a hazardous waste sludge (D006 and D008). This sludge is generated by the facility's zinc ammonium chloride process and then accumulated in a 20 yard roll-off container located in a <90 day storage area. No violation of Ohio's hazardous waste regulations were discovered during this inspection.

Following this inspection, you were sent a letter dated January 14, 1994, requesting information about your zinc chloride process. This information was requested to aid this agency in determining whether or not the spent stripping acid being accepted by Zaclon was a hazardous waste.

The information (and other materials received from Zaclon since this initial submittal) indicates that Zaclon considers the stripping acid a product and that it is managed as such at the facility. This includes stipulating supplier specifications the stripping acid must meet before Zaclon will accept it. Materials are not wastes when they are reused in accordance with Ohio Administrative Code (OAC) 3745-51-02(E)(1)(a). A material is reused if it is employed as an ingredient, including as an intermediate in an industrial process to make a product (OAC 3745-51-01 (C)(5)(a)). As you explained, some raw materials purchased are processed similarly to the stripping acid. Therefore, the stripping acid which Zaclon accepts to use in their process to produce zinc chloride is not considered a waste and is therefore also not a hazardous waste. This determination is based on the information provided to the Ohio EPA.

Mr. James Krimmel - Zaclon, Inc.  
December 23, 1994  
Page Two

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations. If you have any questions, please call me at (216) 963-1231.

Sincerely,

*Tom Roth*

Thomas J. Roth  
Environmental Scientist  
Division of Hazardous Waste  
Management

TJR/fwn

Enclosure

cc: Laura Roberts, Hennepin County Dept. of Env. Mgmt.  
Ed Kitchen, DHWM, CO  
Shannon Nabors, DHWM, CO  
Paul Anderson, DHWM, NEDO  
Laurie Stevenson, DHWM, CO

**CONTROLLED****RAW MATERIAL  
SPECIFICATION****MATERIAL  
NAME****ZINC CHLORIDE-SOLUTION****R.M. NUMBER:027692  
DATE ISSUED:09/12/02  
DATE REVISED:09/10/02  
DATE SUPERSEDED:09/18/00****ALTERNATE  
NAME****CRUDE GRADE, GALVANIZER'S STRIP ACID**

---

**PHYSICAL  
DESCRIPTION**

**Formula:** HCl  
**Appearance:** COLORLESS TO GREEN LIQUID  
**Physical Consts:** VARIOUS BAUME'S  
VARIOUS IRON & ZINC CONTENT

---

**SPECIFICATIONS**

<u>Property</u>	<u>Limits</u>	<u>Test Method</u>
% ZINC CHLORIDE	25 % MIN.	9775-0014
% DISSOLVED IRON	3.0% MAX.	9775-0002

**MATERIAL NOT MEETING SPECIFICATION IS ACCEPTABLE. HOWEVER, A PRORATED CHARGE WILL BE ASSESSED THAT IS COMMENSURATE TO THE AMOUNT THE SPECIFICATION IS NOT MET.**

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**PACKAGING****Containers: TANK TRUCK****Spec. Instr.: NO CERTIFICATE OF ANALYSIS IS REQUIRED. ANALYZE FOR % DISSOLVED IRON AND % ZINC CHLORIDE BEFORE UNLOADING.**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

1822

March 24, 2005

Mr Peter D. Ness  
Health & Safety Manager  
New Balance Athletic Shoe, Inc.  
Brighton Landing  
20 Guest Street  
Boston, MA 02135-2088

Dear Mr Ness:

The purpose of this letter is to respond to your letter to me dated March 17, 2005. Your understanding of the testing that should be conducted to determine if the footwear in question would be a hazardous waste, if disposed, is correct. You are also correct in your understanding that the sample used for testing should be the entire shoe. The cadmium bearing plastic piece incorporated into the sole of the shoe does not need to be extracted for testing in isolation from the rest of the shoe.

I wish to note that, if the footwear is imported into the United States solely for the purposes of disposal (i.e it is brought in as a solid waste) and it is also a hazardous waste, then certain import requirements outlined in Title 40 of the Code of Federal Regulations Part 262, Subparts A and F will apply. I am aware from our initial phone call, that at this time you may seek to sell or donate the footwear within the United States and that disposal is not the only option for which the footwear is being imported.

If you have any questions on this letter, or I can be of any further assistance, please contact me at 617-918-1369.

Sincerely,

A handwritten signature in black ink, appearing to read "Ernest Waterman".

Ernest Waterman,  
Chief of Hazardous Waste Unit

Toll Free • 1-888-372-7341

Internet Address (URL) • <http://www.epa.gov/region1>

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March 17<sup>th</sup>, 2005

Mr. Ernest Waterman  
Chief of Hazardous Waste Unit  
US EPA Region 1  
1 Congress St.  
Suite 1100, CHW  
Boston, MA 02114-2023

Dear Mr: Waterman,

Thank you for taking the time to investigate our question regarding sample protocol for testing our footwear. As I mentioned, this footwear in question has a small piece of plastic incorporated into the sole of the shoe for purposes of stability. This piece when manufactured has a pigment added to the soft plastic which contains Cadmium.

The stability web when completed gets further incorporated into the sole and the final product, in this case athletic footwear. We were unaware of the Cadmium being a part of this piece until it was tested in the Netherlands where we learned it exceeded the EU limit of 100 ppm. As such we can not make this product available for retail sale in this region.

If the product is brought to the US for final disposition, which could be waste disposal, we need to perform a TCLP test to determine if the Cadmium levels are great enough to fail this test. The question posed was whether or not we would grind the entire shoe to create a homogenous mixture for sampling or whether we would need to isolate the component of the shoe which contains the Cadmium pigment?

This letter is to confirm that we would indeed grind the entire shoe prior to obtaining a uniform sample to carry out the TCLP test. Please review my interpretation and confirm this so that we may keep a record in our files if we do indeed bring these shoes to the US for final disposition.

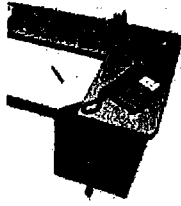
Again, I thank you for your time you gave us on this matter.

Regards,

A handwritten signature in black ink, appearing to read 'Peter D. Ness', with a stylized flourish at the end.

Peter D. Ness  
Health & Safety Mgr.  
New Balance Athletic Shoe, Inc.

1339



Ernest  
Waterman/R1/USEPA/US  
01/03/2006 11:35 AM

To Tara.Davis@ebveec.com  
cc Jeff Fowley/R1/USEPA/US@EPA, Ken  
Rota/R1/USEPA/US@EPA, Juiyu  
Hsieh/R1/USEPA/US@EPA, GailAnn  
bcc  
Subject Fw: Hazardous Waste Information

Dear Ms. Davis:

The purpose of this e-mail is to respond to your inquiry regarding the management of airbags and seatbelt pretensioners. Region 1 agrees that undeployed airbag inflation modules and similar seatbelt pretensioner modules should not be disposed of in the trash.

Noting that your facility is located within Missouri, a state covered by EPA's Region 7 office, we assume that you are trying to obtain an nationwide answer with respect to the question of whether intentional deployment is treatment that requires a permit. We, therefore, wish to direct you to Gail Cooper, Chief of the Hazardous Waste Generator and Characterization Branch, in the Office of Solid Waste to get a nationwide answer to your question.

We also wish to note that states can be more stringent than the federal government. You should, therefore, contact each specific state in which you are interested as there may be legitimate state to state variation in the correct answer to this question.

Please let me know if I can be of any further assistance.

Ernest Waterman, Chief  
Hazardous Waste Unit  
Office of Ecosystem Protection  
US EPA, New England Region  
One Congress Street  
Suite 1100, CHW  
Boston, MA 02114-2023

Phone: 617-918-1369  
Fax: 617-918-0369

----- Forwarded by Ernest Waterman/R1/USEPA/US on 01/03/2006 11:00 AM -----



Ken Rota/R1/USEPA/US  
12/08/2005 02:07 PM

To Ernest Waterman/R1/USEPA/US@EPA  
cc Sharon Leitch/R1/USEPA/US@EPA, Austine  
Frawley/R1/USEPA/US@EPA  
Subject Fw: Hazardous Waste Information

Ernie,

Austine Frawley sent me a regulatory request message that should have gone to you. I think the answer to the question is in RCRAOnline anyway but I wanted to make sure this lands in the right spot.

Ken

Kenneth B. Rota, Chief

RCRA Compliance Unit  
US EPA - New England Region  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

Direct Tel: (617) 918-1751  
Office Fax: (617) 918-1809

----- Forwarded by Ken Rota/R1/USEPA/US on 12/08/2005 02:05 PM -----



Austine  
Frawley/R1/USEPA/US  
12/08/2005 02:02 PM

To Ken Rota/R1/USEPA/US@EPA  
cc Tara.Davis@ebveec.com  
Subject Fw: Hazardous Waste Information

Hi Ken. Im forwarding you this question on air bags and seatbelt pretensioners and HW regs for response. Thanks.

Austine Frawley, US EPA-New England  
Office of Ecosystem Protection (CIP)  
TEL: 617/918-1065  
FAX: 617/918-0065  
Frawley.Austine@EPA.GOV

----- Forwarded by Austine Frawley/R1/USEPA/US on 12/08/2005 01:58 PM -----



Tara.Davis@ebveec.com  
12/08/2005 11:57 AM

To Austine Frawley/R1/USEPA/US@EPA  
cc  
Subject Hazardous Waste Information

To Whom It May Concern,

I am writing in regards of treating airbags and seatbelt pretensioners as a hazardous waste. The air bag's inflation system reacts sodium azide ( $\text{NaN}_3$ ) with potassium nitrate ( $\text{KNO}_3$ ) to produce nitrogen gas. Hot blasts of the nitrogen inflate the air bag. The air bag system ignites a solid propellant, which burns extremely rapidly to create a large volume of gas to inflate the bag. The bag then literally bursts from its storage site at up to 200 mph. Like airbags, pretensioners are triggered by sensors in the car's body, and most pretensioners use explosively expanding gas to drive a piston that retracts the belt. Pretensioners also lower the risk of "submarining", which is when a passenger slides forward under a loosely worn seat belt.

I am aware an airbag module is considered as hazardous waste so my question is this: If an individual deploys an airbag (without a permit) on his own watch would this be considered as treating a hazardous waste? We are a hazardous waste disposal facility and this concept varies from state to state due to the interpretation of the hazardous waste regulations. To give an example: if an auto dealer receives a automobile that is to be repaired under warranty replacement and the old airbag module is removed. A new module is put in the automobile. The dealership is not allowed to just throw the airbag away in the trash or elsewhere. So if the mechanic deploys the airbag and then

discards it, would this be considered as though the dealer has treated a hazardous waste? I understand that once the airbag module is deployed it is no longer considered as a hazardous waste that is why the airbag is deployed by the individuals before discarding the equipment. The alternative to the mechanic deploying the airbag is to send the airbag as is to a hazardous waste disposal company and let them properly dispose of them. The same question for seat belt pretensioners as far as deactivating them and at that point throwing them away also.

Any assistance with clarifying what is considered treatment for these devices would be greatly appreciated. If you are unable to provide an answer please guide me in the direction to resolve the question. Thank you for taking the time in assisting me.

Best Regards,

Tara Davis  
Business Development Specialist  
EBV Explosives Environmental Company  
tara.davis@ebveec.com